THE

MEDICAL AND SURGICAL REPORTER.

No. 1281.] PHILADELPHIA, SEPTEMBER 17, 1881. [Vol. XLV.—No. 12.

Original Department.

Communications.

UNPUBLISHED LETTERS AND LECTURES OF Dr. BENJ. RUSH.

BY FREDERICK HORNER, JR., M.D.,
Of Salem, Va.

The materials for this publication were bequeathed to the writer by his grandfather, the late Robt. H. Little, M.D., who was, in 1798, the pupil of Dr. Rush and a student of the University of Pennsylvania. In a letter to a friend in Virginia, Dr. Little thus wrote of his preceptor: "The old gentleman is a man of the most fascinating manners, and his mind superior to any I ever knew. He meets his class in the morning with smiles and leaves them in the same good humor; in short, it would take the pen of an Addison to portray the perfections of this great man." In 1804 Dr. Rush thus wrote to Dr. Little, at the time practicing his profession in Prince William County, Virginia: "I have only to advise you in your present contest with the powerful and insidious epidemic (bilious remittent fever) to accommodate your remedies to the state of the system by all modes of treatment. There is certainly a right one, and I sincerely wish you may find it. It is an old and true remark in our country that in very rainy seasons low situations are healthy and high ones sickly, from the former being *completely* overflowed with water, and the latter having no more upon them than just enough to favor putrefaction. Tell your farmers who complain of the plaster-of Paris as the cause of their sickness, that the potato was banished from France by an edict of the government, because a sickly season followed in a few years its cultivation in that country. The people after a while discovered their mistake and recalled the potato from its banishment. I hope the plaster-of-Paris will not be dishonored, nor the science of our country be degraded, by a similar act. Our city is unusually healthy; the heavy rains, by washing our streets and common sewers, have been the means, in the hands of Heaven, of making it so.

Health and happiness.

Yours sincerely,

Phila., Sept. 5, 1804. Benj. Rush.

Lecture 1st. "On the Pulse."

"The prognosis of diseases crept into medicine at a time when the duties of a priest and physician were joined to exclude pain as a disease, and also debility. Morbid action most usually shows itself in the arterial system. The arteries are the sentinels or the outposts, as it were, to the whole body, and are, therefore, the parts upon which attacks are most commonly made. Debility is not a sign of danger in the commencement of an acute disease, though it is at the close of it. Many patients die from mere debility after a disease is removed, yet it is, therefore, the duty of a physician to endeavor to prevent it. Let us attend to the signs of disease as they appear in the pulse. The blood vessels are, as I have before proved, the "prunum vivens" and "ultimum moriens" of the living human body, as Harvey long ago discovered, and Haller has demonstrated. It is proper, therefore, to refer to them, for this gives us information of whatever is going on in the body; this it does from its ultimate connection with every part of it; they are to the body what the dial plate and hands are to the watch. Physicians usually distinguish disease by other signs; for instance, the tongue, respira-

tion, countenance, etc. Others have a predilection to the state of the excretions, as the urine, sweat and fæces. I reject none of these, but rely principally on the *pulse*, and I hope my pupils will be everywhere known for their knowledge and predilection for the *pulse* in forming a judge ment of diseases. It is remarkable that Hippocrates and Celsus took no notice of the pulse. Galen was the first who attended to it. I shall first relate some facts on the history of the pulse: first, in its natural state; secondly, in all its morbid states, and thirdly, the best manner of discovering them with the finger.

First. In old people the pulse is always slow and intermitting, and according to Morgan a regular pulse in them is a sign of disease. I have found this true, and have profited by the information, for you might bleed an old man to death if you attempted to make his pulse regular. The fullness and slowness of old people's pulses is owing, perhaps, to an abstraction of excitement from the muscles to the arteries, though it would seem as if excitement was never lost in the arteries. The pulse descends as low as 40 and even to 30, and according to Dr. Haberden, to 26, in old people. Sex influences the frequency of the pulse; it is quicker in women than in men. Difference of civilization has the like effect; it is slow in savages. In eight out of ten Indians who were in this city some time ago, I found the pulse from forty to sixty in a minute; the two in whom it was more frequent, one was sitting near a fire, and the other was the son of a Frenchman by an Indian mother. The slowness in the pulse of savages is owing to the want of stimulus of thought and labor in them. It is slower in the inhabitants of the country than in those of cities. I wish these experiments would be extended to people of different nations, and of different employments and occupations, as I have no doubt but they influence the frequency of the pulse; size will do this; it is quicker in short people. Climate and season also influence the pulse. In the West Indies it is about 100 per minute. It is slowest in the inhabitants of cold climates. In the inhabitants of Greenland it is as slow as forty in a minute; it is slower in the winter than in summer, and is slower at different times of the day and in the morning, quicker at noon, and quicker still at night. It is different in sleeping and waking; in sleep it is slowest. Different positions of the body likewise influence the pulse. When the arm is exposed for some time out of bed, to the cold, its frequency is reduced. It is quicker in the arm not lain upon. It is slowest on our backs, quicker on our sides, quicker than this when we sit up in bed, and quicker still when we stand up. Food and drink influence the pulse. It is quickened by a full meal or malt liquors; it is bounding, frequent, and full after a hearty meal, called by some the fever of digestion. All the passions of the mind influence the pulse. The stimulating passions, as hope and joy, increase its frequency. The sedative passions, as fear, terror, grief and anger, reduce its frequency and force; that is, before stimuli act upon the accumulated excitability which follow those sedative passions. Conversation quickens the pulse from seventy to ninety strokes in a minute. In some persons in good health the pulse is preternaturally slow or quick. In a lady whom I attended it was in health never above forty strokes in a minute, and in fever it seldom rose above fifty or sixty. In Judge Peters, of this city, in health, it is always above 100 per minute. In some people the arteries run above the radius parallel to the thumb. It is of consequence to know especially when it occurs in our habitual patients. The following circumstances also affect the frequency of the pulse: 1st. Age. It is from 130 to 140 at birth. During the first year it is from 108 to 120; during the second year it is from 90 to 108; it continues from 80 to 108 during the third, fourth, fifth and sixth years of life. At the seventh it is 60 to 80, the same as in adults.

2d. I now consider the pulse in a *morbid* state, viz., when it departs from order and regularity; first, by *frequency*, I mean the number of strokes in a minute. By *quickness* I mean the greater or less time in which a pulsation is performed. It may be quicker without being frequent. This often occurs in the yellow fever; its frequency is occasioned by morbid irritability in the blood vessels. In a natural state of the pulse in middle climates its frequency is from 60 to 80; its medium is 66; the pulse, from an excessive frequency, may be from 70 to 180, and even to 200, and from a defect in frequency it falls to forty and even ten, as occurs in apoplexy. It becomes frequent by a morbid irritability in the blood vessels, and morbidly slow, from indirect debility; a second cause may be pressure on the brain, as in hydrocephalus; third, from spasm of the heart, and fourth, from a defect of irritability in the arteries induced by the excessive force of contagion; the pulse is sometimes intermitting; there is often an interval after the third stroke. This is common in all malignant fevers; the full, frequent, and quick pulse, without hardness, occurs in the beginning of pleurisy, and in common bilious fevers, and in

pneumonia; this I call squachus. 2d. A full, frequent, and tense pulse, which occurs in rheumatism, gout, and sometimes in yellow fever. 3d. A quick, frequent, but tense and small pulse, which occurs in chronic rheumatism and pneumonia. 4th. There is a typhus pulse which is frequent, but destitute of fullness, or tension; this occurs in low chronic fevers. 5th. There is the depressed or locked pulse, which is scarcely perceptible, and is often as slow as forty; it occurs in malignant fevers, and in plague, yellow fever, smallpox, and pleurisy. In the latter disease Dr. Quinn distinguishes it from the weak and low pulse: first, from its occurrence in the beginning of acute diseases, and in the paroxysms of fever; 2d, from its rising and increasing in force after the diminution of pressure in the brain and lungs; 3d, it is distinguished from a weak and low pulse occurring in inflammations of the stomach, the bowels, and brain, and 4th, from a sense of tension imparted to the finger upon pressing the artery. I never felt a pulse in those cases slow and weak, but always weak and quick. There is the corded, catgut pulse; it strikes in so forcible a manner as to convey an idea of resentment, and occurs in all malignant fever. Lastly, there is the hectic pulse, occurring in hectic fever, gout, ulcers, etc. In palsy the pulse is full and bounding, often tense and fuller in the arteries of the affected side than the opposite. This state occurs in acute dropsy, and after effusions, without great morbid action. The weak and low pulse occurs often from mere debility, and in hypochondriasis, likewise at the close of malignant fevers. Sometimes there is an absence of pulse for hours, and even days, without the extinction of life. This mostly occurs in stomach and bowel complaints. I shall, in conclusion, add a few directions for feeling the pulse: 1st. Feel the pulse of a patient before he describes his disease, as conversation influences the celerity of the pulse. Apply your four fingers over the artery. In doubtful cases feel the pulse of both arms, and in a position free from pressure, and in which fewest muscles act, and do not feel less than twenty strokes. I have frequently known an intermission after the eighteenth stroke. The Chinese count forty strokes. This may be the reason why they prescribe with so much accuracy and skill. When the artery of the wrist cannot be felt, have recourse to the temporal artery, especially in complaints of the head; the pulse should always be felt previous to venesection, and before prescribing opium, emetics, purgatives, tonics, and stimulating drinks or diet.

The *prognosis* from the pulse is simple. Few patients recover from a fever after it has passed 180 in frequency. The pulse is said to become languid, or insensible, just before death. Dr. Ramsey, of South Carolina, says, he has sometimes known the last pulsation uncommonly full.

I conclude this lecture by observing that the following inscription ancient history records was placed over the door of the Temple of Plato:—

"Let no one enter here who is not acquainted with Geometry."

Were I to erect a Temple to Medicine, I should inscribe over the door of it:—

"Let no one enter here who is not acquainted with the Pulse."

EXSECTION OF THE ENTIRE RADIUS.

BY C. C. FIELD, M.D.,
Of Easton, Pa.

The only other case on record of removal of the entire radius, is that of Dr. Carnochan, of New York. In his case, the injury was the result of a blow, in a man of strumous aspect, upon the upper part of the forearm, which was followed by ostitis, caries, and abscess of the bone. In the removal of the bone he divided it at its central part, in order to facilitate the detachment at its articular extremities. When the man recovered, he had still rigidity of the elbow joint, due to the antecedent disease, the hand was drawn slightly toward the radial side of the arm, and the styloid process projected more than natural. He could carry a bucket of water without difficulty, and write; the functions of the fingers are not diminished; sense of touch good as ever; motion of wrist good; flexion and extension of hand made without difficulty; the hand can be turned prone, supine, adducted and abducted; extension of wrist and fingers can be made.

The bone, when removed, measured a little over four and three-quarter inches, and its weight seven and a half ounces. A healthy radius weighs from two ounces and one drachm to two ounces and two drachms.

On the 20th of May, 1878, I was requested to visit Jacob, son of Franz M. Hans, residing on Church street, of this city, for an injury that he had sustained to his left arm while playing with his companions some time before. On examining the arm, it was found to be much swollen, red, and exceedingly painful on pressure. A number of fistulous openings also existed between the wrist and elbow, from which pus of an unhealthy character was exuding. On examining the bone through the openings, with a long probe,

it was readily discovered, that the surface of it was not only rough, but in several portions the instrument passed directly into it, establishing, without doubt, its carious condition. A further exploration showed that the bone at its upper portion was enlarged, rough, and of a cancellated structure, leaving no doubt as to its necrosed state. The condition of the bone being thus decided upon, and the boy, as well as his parents, being willing to submit to any treatment that would afford him a hope of relief, he was informed that nothing less than an operation, to which he cheerfully assented, would free him from his extreme suffering, and give him a chance for the future use of his hand and arm. As his system was much impaired in consequence of the pain which he had endured, and the free suppuration from the sinus openings, it was considered advisable to put him on a tonic treatment and nourishing diet, and to apply such local means as appeared proper, which was continued until the 14th of August, when the operation was performed in the following manner, assisted by Drs. Ott and Heller, and Wood, Field, Knecht and Prendergast:—

The patient was placed supine upon the operating table. The assistants were arranged so as to support the body and extremities. and to be in position to hand the instruments and sponge the wound.

Dr. Heller cautiously administered the chloroform (giving him previously about two ounces of brandy) until he was completely under the influence of the anæsthetic. The forearm was flexed at about a right angle, turned inward and properly supported by assistants. At the same time the brachial artery was firmly compressed. The limb being thus arranged and steadily held, I made an incision with a strong scalpel, along the outer and posterior portion of the forearm, extending from above the elbow to the wrist, the entire length of the radius, beyond its styloid process. The integuments and fascia being thus divided, and carefully dissected down to the bone, were found firm, and to an extent infiltrated with pus. The extensor tendons, which occupy the grooves at the lower and outer portion of the radius, were carefully drawn from their position, without doing them the slightest injury, being desirous of preserving, as far as possible, all the natural functions of the hand. The dissection being continued, the entire outer portion of the bone was exposed, which was found rough, enlarged at its upper extremity, presenting a honeycomb appearance, and filled with large cavities, and numerous foramina, from its upper to its lower portion, many of them communicating with the external sinuses, causing it to present the appearance as if formed of fragments of bone held together by altered soft tissues. The lower portion of the bone was carefully disarticulated from the scaphoid and lunar, at the radio-carpal articulation, and the tendons of the flexor muscles, which pass over the internal and lower portion of it, were drawn out of the reach of the knife. The remains of the periosteum were removed by peeling it off, as it were, from the bone, and left in the wound, the interosseus ligament carefully shaved from it, its entire length, with a probe-pointed bistoury introduced at the lower, outer, and upper portion of the membrane, and being kept in close contact with the radius, was separated entirely from it without injuring the vessels, or nerves. It yet remained to liberate the upper portion of the radius, which forms an important part of the elbow joint. Its cup-like depression on its head, which articulates with the lesser, or radial head of the humerus, and the circumference of the head of the radius with the lesser sigmoid cavity of the ulna, which forms the principal action of the superior radio-ulnar articulation, were firmly locked, welded, as it were, together, in consequence of the altered condition and tumefaction of the surrounding soft tissues. These tissues were dissected from the upper portion of the radius, carefully avoiding any injury to the important vessels and nerves in the bend of the arm. The annular ligament, and the tendon of the biceps were then divided, the superior radio-ulnar articulation, and the union between the radius and humerus being separated, together with the remaining soft tissues, completed the operation. The wound being thoroughly cleansed, the edges of the fistulous openings were removed, and united with interrupted sutures, as was also the wound made by the operation. The forearm was dressed with lint, saturated with tr. opii, placed in a Bond's splint, properly padded, and lightly secured with compress and bandage. The arterial hemorrhage during the operation was slight, and readily arrested, and the profuse venous bleeding, in consequence of the extreme congestion of the forearm, ceased immediately after the operation was finished. As soon as the patient was restored to consciousness, he was freely stimulated, and morphia sulph., gr. ss., administered. He complained of pain for about an hour, when the anodyne gave him relief, and he passed into a quiet sleep. He awoke in about four hours, completely rallied. He was ordered beef tea, cream, eggs, soft-boiled, and whisky.

He rested tolerably well during the night, and although his pulse numbered upward of one hundred beats per minute, in the morning he did not complain of the slightest uneasiness, and ate a hearty breakfast of soft boiled eggs and cream. The wound presented a good appearance; lint saturated with tincture opii continued. This application in his case had a very happy effect, in completely preventing pain, and thus calming the general system. He continued to improve until the evening of the fifth day, when the suppuration was profuse, and he complained of being very weak. Whisky was given him every hour, except during sleep, and cream, soft boiled eggs and beef essence were administered every two hours. On this course of treatment he soon rallied, and continued to improve, although the suppuration was profuse for upward of two weeks. From this period the wound healed rapidly, and at the expiration of eight weeks, the splint was removed from the forearm, a light dressing of binder's board, compress and bandage, substituted, and in a very short period he commenced using his hand and arm, having entirely recovered without a single untoward symptom. He possesses all the natural functions of the arm, forearm and hand, not having the slightest stiffness of the elbow or wrist joints, the slight projection of the styloid process of the ulnar not interfering in the smallest degree with any of the movements of the wrist or hand. He also states

that its strength is not in the least impaired, that it does not in any way interfere with his work, which is that of an ostler. He carries, with it, large buckets filled with water, and does all other work pertaining to his vocation, with as much ease as with the hand not operated on.

For the purpose of giving your readers a better idea of the above case of the entire exsection of the radius, I have had the arm which was operated on, as well as the bone which was removed, photographed, so that the extent of the operation, as well as its results, may be seen.

The length of the bone from its humeral to its carpal extremity is eight and a half inches. The circumference of the involucrum, which is at the humeral extremity, is three and a half inches.

HOSPITAL GANGRENE.

BY J. M. BATTEN, M.D.,

Of Pittsburgh, Pa.

This disease seems to have been more prevalent in Europe and the East than in this country, where, owing to the silence of the profession, it was exceedingly infrequent previous to our late war. After the battle of Gettysburg a majority of those who were wounded and were sent to the U. S. Army Hospitals in Philadelphia, were attacked with hospital gangrene, and many lives succumbed to its frightful ravage. It is probable that hospital gangrene has appeared periodically as an endemic from the earliest period, yet no description of the disease appeared in medical literature till, in the year 1788, in the writings of Pauteau, of Lyons, which were published after his death, a full and complete description of the disease was given. Afterwards, Duscassoy, in his writings, directed attention to the disease. Subsequently tracts were published by Boggie, Brauet, Blackadder, Leslie, Gillespie and Moreau, to whose joint labors we are indebted for much that is known at present of the disease. Sporadic cases have been noticed among the wounded in crowded and ill ventilated hospitals, but with the present knowledge of the importance of architecture, ventilation, and cleanliness of our hospitals sporadic cases of the disease are comparatively unknown.

It is said there were several endemics of the disease in the Hotel Dieu at Lyons in the time of Poteau, and such were their ravages that Poteau was induced to ask the question whether hospitals were not an evil instead of a blessing. The disease appeared in the Naval Hospital in New York in 1780, and it committed frightful ravages on Pigeon Island, St. Lucia, in 1781. The crew of a vessel, "Prince of Wales," suf-

fered with the disease in 1800, in her homeward passage from Martinique to England.

It is stated that the English suffered but little with this disease during the Crimean war, except during the first winter, when it prevailed in a mild form at Scutari, but it never became general or severe, notwithstanding the barracks hospital of that city, during its early occupancy by troops, was in a filthy and uncomfortable condition. Whenever any cases did occur they were immediately taken to a place set apart for this disease. On the other hand, the French suffered most fearfully, owing, as it was supposed. to their being removed, immediately after being wounded, to the hospitals of the Bosphorus, in which they were crowded together in wards of those institutions.

The wounded after the battle of Gettysburg remained in hospitals in the vicinity of that battle ground for about two weeks before they were sent to the different U. S. Army Hospitals. I remember it was July 13th, 1863 before we received our first installment of wounded at the U. S. A. Hospital, Broad and Cherry streets, Philadelphia. The disease made its appearance among the wounded at this hospital August 10, 1863. I believe the disease was general that year among the wounded at Gettysburg. I know there was not a hospital in Philadelphia which had received the wounded soldiers that escaped its ravages. It prevailed also in the U. S. A. Hospitals in Baltimore and Washington City. In the hospitals of Philadelphia few of the wounded escaped the disease in some form or other. It did not abate till the cold weather of the Fall commenced. and it was the spring of 1864 before many of the convalescents were sent to duty. I do not remember of there having been any cases in the U. S. A. Hospitals in 1862, after the battle of Antietam.

The disease is a frightful disease. It has often baffled the skill of the ablest surgeons, as those who witnessed its ravaging effects in hospitals during the late war will bear testimony. Persons may be attacked with it who have or have not an abrasion; most generally the former. It confines itself principally to armies, hospitals, and on ship-board. It is ushered in by a chill, excessive fever, high temperature, agonizing pain at the seat of the wound. A wound that has been healing rapidly suddenly takes on a swollen, irritable aspect—a red raised border forms around the ulcer; the ulcer becoming dry, burning, and exceedingly painful; on the immediate border of the ulcer a narrow bleb or blister forms; this is soon broken down, sloughs; the redness of the skin around the ulcer increases; the ulcer becomes more irritable and painful; constitutional symptoms become more grave, till the ulcer may become almost any size. The slough first attacks the skin, then superficial fascia, next cellular tissue, muscles, sheaths of arteries and veins, then arteries, veins and nerves themselves, and lastly bone. The ulcer presents a dirty brown color, and the odor therefrom is very offensive. During this suffering we have constitutional symptoms, headache, fever, loss of appetite, restlessness, often diarrhœa, tongue dry, coated brown, red round the edges. Sometimes in a debilitated patient who has received a gunshot wound, the slough makes inroads on the cellular tissue under skin and superficial fascia unobserved by the surgeon till his attention is suddenly directed thereto by hemorrhage from some vessel; the external ulcer presenting an indolent aspect. This I have observed in one case.

I have seen a leg with all its tissues sloughed away but bone, arteries and veins. I mean middle third of leg; the foot being in its normal condition; the pulsation of arteries nourishing; the foot was plainly observable.

The predisposing causes are fatigue, anxiety, scanty and improper diet, exposure, depression, nervous exhaustion; exciting causes, wounds, crowded and ill ventilated hospitals, filth. The disease exists sometimes as an endemic. Whether hospital gangrene is an infective disease or whether it follows a condition of the system established therein by great and prolonged fatigue, mental depression, nervous exhaustion, scanty and unwholesome food, such as was the army of the Potomac subjected to previous to the battle of Gettysburg, awaiting the exciting cause to fire it up, is a question which has puzzled the ablest minds. I am certain, however, after the disease has been established it can be conveyed from a person affected to another who has been exposed to the same depressive influences; hence a prudent surgeon will use all means that are known in modern surgery to prevent its extension. At that time, 1863, a separate sponge and basin were provided for each patient. I am not, however, certain that the poison from a gangrenous ulcer could be conveyed to a person with an abrasion, so as to produce in him the disease, he not being previously predisposed to, or not having been exposed to the same depressing influences. The disease is more likely to attack men than women or children, for obvious reasons. Men are usually exposed more to depressing influences. It is believed that the poison lies latent in the system about forty eight hours. My experience

has taught me that the time intervening between reception of wound and inception of gangrene is from forty to sixty days.

The diagnosis of this disease is not difficult; in fact, the only disease for which it may be mistaken is scurvy, but the history of the case would go far in establishing the diagnosis; besides, in scurvy the granulations are large and fungous, the surface of ulcer is bloody, the gums are soft and spongy, the constitution is not affected, no fever, pulse normal. In hospital gangrene there is fever, accelerated pulse, dry and painful ulcer with red border.

The prognosis, under good hygienic surroundings and proper prophylactic treatment, is generally favorable, especially if the patient has a good constitution. Death, however, often ends the suffering of the patient, after a prolonged drain upon his system by suppuration, or by repeated hemorrhages from important arteries, from an abscess forming in some organ, or by the blood becoming empoisoned. Patients often die from amputation or from ligation of arteries, especially when they have to be repeated. Religating arteries, sometimes of necessity, has to be performed so often that a point toward the trunk is reached where the skill of the surgeon ceases to longer benefit the patient, and he dies from hemorrhage.

The topical treatment consisted in applying the actual cautery, bromine, in its purity, or nitric acid; afterwards a large, warm linseed poultice was put over the ulcer. Sometimes the borders of the ulcer were painted with tincture of iodine. After the ulcers commenced to suppurate they were dressed with solutions of different strength of bromine, nitric acid, or carbolic acid, usually about thirty to sixty drops of either in an ounce of water. The internal or constitutional treatment was expectant. The wards of the hospitals were kept clean and well ventilated, and whenever opportunity presented patients were taken out into the open air. It was not an unusual occurrence for the ulcers to increase till they reached diameters of 2¾ inches to 4 inches, extending sometimes even in depth beyond the muscles, involving the bone. The diameters of the ulcers, from measurement: one case, ulcer of left thigh, 2¾ inches by 4 inches; another case, ulcer of right thigh, 3½ inches by 3¼ inches: another case, ulcer of scalp, 3½ inches by 2½ inches. There was one case of hospital gangrene, in which the left femoral artery was ligated three times, the external iliac twice; the patient recovered. This was the only case of ligation of the external iliac during the war, in which patient recovered.

Medical Societies.

THE INTERNATIONAL MEDICAL CONGRESS.

PROCEEDINGS OF SECTIONS.*

Sub-section on Diseases of the Throat.

Both in the number of those present at the meetings and in the distinguished position occupied in the medical world by those who took part in the discussions, the Sub section on Diseases of the Throat may certainly be considered as one of the most successful departments of the Congress. The first paper read was one of great interest to all laryngologists, as in it Señor Manuel Garcia detailed how it came to pass that he invented the laryngoscope.

Dr. Vivian Poore's case of Web in the Larynx, probably congenital, excited considerable interest, the general opinion being that though these cases were not necessarily congenital, the one before the meeting certainly was.

Dr. Rumbold's (St. Louis) paper went to prove that the spray producer was the only plan which at the same time removed morbid secretions from the affected surfaces without causing the least irritation.

In opening the discussion on Diphtheria, Dr. Morell Mackenzie stated that, so far as local treatment was concerned, he placed his sole reliance on varnishes—*i. e.*, remedies which exclude the air from the false membrane—tolu dissolved in ether being the most serviceable. There was an almost complete unanimity against the forcible removal of false membranes or the cauterization of the affected surface. Ice in the early stages, steam inhalations, with or without antiseptics, in the later stages, were generally recommended. Lactic acid and lime water were praised as being the best solvents, and boracic acid as an antiseptic. In opposition to the views generally held, Dr. Meyer brought forward, for Dr. Nix, a Danish medical practitioner, his plan of treatment, which consisted in scraping away the false membrane and cauterizing the scraped surface with solid nitrate of silver. Dr. Lennox Browne recommended the removal of enlarged tonsils, even during an attack of diphtheria, if they offered any impediment to respiration. In the discussion on the "Pathology of Laryngeal Phthisis" there was great difference of opinion, both as to the early recognition of the disease and its diagnosis from syphilitic ulceration. Professor Krishaber, of Paris, considered the diagnosis of tuberculous laryngitis during the patient's life very easy, whereas Professor Rossbach, of Wurzburg, was of opinion that certain diagnosis of laryngeal consumption was only possible if pulmonary consumption be simultaneously present, otherwise tubercular and syphilitic ulceration can only be distinguished from each other by their different behavior to iodine. On the other hand, Dr. Fränhel, of Berlin, said that the treatment by iodide of potassium would not differentiate it from syphilis, as tuberculous ulceration sometimes heals under the iodide. As regards prognosis, the view of the laryngologists who spoke was more hopeful than that generally held by physi-

* Prepared principally from the report in the *Lancet*.

cians. Professors Gerhardt and Rossbach (both of Wurzburg) asserted their belief in the absolute curability of the disease.

The discussion on the motor neuroses of the larynx centred chiefly on the clinically and anatomically proven fact of the proclivity of the abductor fibres of the recurrent nerve to disease, both central and peripheral. Professor Gerhardt, who introduced the subject, was opposed, in the present state of our knowledge, to any premature hypothesis to explain this curious fact. The papers introducing the discussion on "Neuroses of Sensation of the Pharynx and Larynx" were very opposite in character, that of Professor Schnitzler, of Vienna, being a short practical one, whereas, the one sent in by Professor Elsberg, of New York, and read (in part) by Dr. Morell Mackenzie, was very elaborate.

In discussing the formation of Mucus in Larynx and Trachea, Professor Rossbach pointed out that the secretion was independent of central nerve influence. Dr. Fränkel drew attention to the fact that the conditions in the trachea on which the author had based his statement were different from those in the nose and pharynx. Dr. Bayer, of Brussels, in his paper on "Influence of Female Genital Organs upon Organ and Formation of Voice," detailed all the possible consequences of this connection. Drs. E. Fränkel and Semon insisted that the prognosis in these cases ought to be guarded, as even when apparently dependent upon uterine disease, the cure of this latter was not necessarily followed by the cure of the laryngeal trouble. The discussion on "Indications for Extra or Intra-Laryngeal Treatment of Growths in the Larynx," which was opened by Dr. Fauvel, of Paris, and Professor Burow, of Königsberg, affirmed the statement of the latter, that only if an experienced laryngologist had established the inexpediency of the intra laryngeal treatment may the extra laryngeal method be adopted; the only marked exception being in favor of thyrotomy in certain cases. Dr. Solis Cohen, of Philadelphia, and Professor Lefferts, of New York, were, however, rather more in favor of the extra-laryngeal mode than their German *confrères*, but even they limited it to exceptional cases. There was a general agreement with Dr. Semon, that of necessity the removal of intra-laryngeal growths must remain in the hands of laryngologists who had devoted special attention to the subject.

Professor Krishaber pointed out that in children the removal of laryngeal growths may be accomplished with comparative ease, by guiding the forceps into the larynx by means of the forefinger, and seizing the growth without the aid of the mirror.

Dr. Hering's (Warsaw) paper on the Results of the Mechanical Treatment of Laryngeal Stenosis was based upon statistics of all hitherto recorded cases, one hundred in number. He attributed the want of success reported as not due to the insufficiency of the method, but evidently to want of patience on the part of the patient or surgeon, or to the non-adaptability of the plan of treatment to the particular case. This view was agreed to by all who took part in the discussion.

The discussion on Indications for the Complete or Partial Extirpation of the Larynx, which was opened by Dr. Foulis, of Glasgow, revealed a great difference of opinion between the surgeons and the laryngologists, the former being disposed to include a larger number of cases among those suitable for the operation than the latter. Professor Czerny of Heidelberg, to whose careful experiments we are indebted for this operation, was present and spoke on the question.

Professor Voltolini, of Breslau, the oldest advocate of the method, introduced the discussion on the Galvano caustic Method in Nose, Pharynx, and Larynx. The general opinion was in favor of this plan in the nose and pharynx; in the larynx its utility was more doubtful. Some of the speakers, notably, Dr. Foulis, dwelt on the advantages of the actual cautery.

In his paper on the Pathology of Nasal Catarrh, Dr. Bosworth, of New York, asserted that rhinitis atrophica was a primary affection, and not a secondary stage of the hypertrophic variety.

The subject of Adenoid Vegetations in the Vault of the Pharynx, was introduced in an exceedingly able paper by Dr. Meyer (Copenhagen), to whom the credit of having first directed attention to these growths must be assigned. His statements were supported by Dr. Löwenberg (Paris), in his introductory paper. Both remarked on the frequency with which this affection is overlooked, and dwelt on the importance of directing more attention to it, as it is so frequently the cause of ear troubles, nasal voice and nasal respiration, and even affections of the conjunctiva. These growths are almost exclusively met with in childhood and youth, hardly ever occurring after the age of twenty-five. As regards treatment, very different methods were suggested, the most remarkable of which were those brought forward by Drs. Meyer, Löwenberg, and Guye.

The discussion on the Nature and Treatment of Ozæna elicited a great difference of opinion. Dr. Krause's view, that the fetor, which is such a prominent feature in these cases, was due to the formation of fat and the decomposition of fatty acids, did not find any supporters. For the palliation of this disease, which all agreed was not curable in the strict sense of the word, syringing after Michel's plan and the use of Gottstein's tampon were recommended.

The demonstration of patients, instruments, etc., for the Sub-section of Diseases of the Throat, took place at the Hospital for Diseases of the Throat and Chest, Golden Square, and was very numerously attended.

Dr. F. Semon showed an interesting series of five cases of Bilateral Paralysis of the Abductors, on one of whom he had to perform tracheotomy for the relief of impending death from asphyxia, and one case of Anchylosis of the Crico-arytenoid joint.

Dr. Poore exhibited a patient with a Web in the Larynx, probably congenital.

Professor Krishaber brought for inspection a set of Tracheotomy tubes; he stated that there is a definite relation between the height of the body and the diameter of the trachea, consequently the size of the tracheotomy cannula should be adapted to the patient's height.

Dr. Foulis showed an apparatus for heating the actual cautery, also instruments for removing larynx, artificial larynges, and two larynges he had removed.

Dr. Cresswell Baber exhibited a self retaining nasal speculum, and a snare which could be fixed at any angle.

Dr. Michel demonstrated his method of removing adenoid vegetation by means of the galvano-caustic loop.

Dr. Fränbel exhibited a mouth dilator, a modification of Whitehead's, with the addition of a palate hook. This may be regarded as one of the most valuable of the instruments exhibited. He also showed a prism for inspection of the cavities of the body.

Dr. Morell Mackenzie sent a patient on whom he had performed internal œsophagotomy, and a case of spasm of the tensors of the cords, and showed his œsophagoscope. Störch's Œsophagoscope was also shown.

Dr. Whistler exhibited a patient with syphilitic stenosis of the pharnyx, in whom he had established a communication between the pharnyx and posterior nares. Dr. Cadier exhibited his tube larnygoscope, a most inconvenient and unpractical instrument. Dr. Tornwaldt showed a tampon filled with water, for the dilatation of laryngeal stenosis. Dr. Bosworth brought forward his mode of removing polypi, insisting on the advantage of using No. 5 steel piano wire. Dr. Rumbold showed his spray producers; Mr. Spencer Watson a self-retaining nasal speculum, and other instruments for the treatment of diseases of the nose, and Dr. Prosser James a series of larnygeal lancets and probes, each being forged out of one piece of solid steel.

Section on Surgery.

Mr. Erichsen's address was a very apt introduction to the work of this section, for after a few introductory remarks on the progress of surgery, he briefly alluded to each of the eight subjects specially chosen for discussion, and tersely pointed out the main lines along which such discussions could most profitably proceed. After the address, Staff Surgeon Reid, who was the first to treat aneurism by Esmarch's elastic bandage, opened a discussion on this subject, with a paper recording his own case, and pointing out that sacculated aneurisms were the only ones suited for this treatment, which cured the aneurism by causing coagulation of the whole mass of blood in the sac. Mr. Pearce Gould followed, much on the same lines; he gave a table of sixty-two published cases in which this treatment had been employed, from which he drew the conclusions that the more important element in the cure is the organization of the clot in the artery itself, and that failure may result either from the blood not clotting at all, or from washing away of the clot first formed. He further pointed out that the danger of over-distending the other arteries, or of overtaxing a weakened heart, ought to be guarded against, and that preparatory treatment to increase the plasticity of the blood was desirable. Mr. Bryant referred to three cases in which he had failed to cure the aneurism, and regarded the capillary hemorrhages in the part of the limb not emptied of blood as liable to lead to gangrene. Mr. Pemberton related a case, fatal from gangrene, where it was found that the vein was completely obliterated opposite the aneurism, which was occluded with coagulum.

Mr. Spencer Wells opened the discussion on recent advances in the surgical treatment of intra-peritoneal tumors, and the points upon which he laid stress were the necessity for union of the edges, or rather surfaces, of the cut peritoneum, so as to ensure immediate union; the great value of pressure forceps for the control of hemorrhage; and the fact that the use of antiseptics has done away with the need for drainage; during the last three years he had not used drainage once, though he thought two or three patients had died who might have been saved by it. Dr. Marion Sims strongly advocated drainage, though admitting it often led to ventral hernia; while Drs. Keith, Thornton, and Martin advocated it for severe operations only, and in cases of cysts with putrid contents. In reference to removal of uterine tumors, in addition to the citation of interesting cases by several speakers, the main outcome of the discussion was that the operation was rendered safer and attended with less loss of blood when the tumor could be raised out of the wound and enveloped in an elastic bandage; the careful closure of both the uterine and the peritoneal cavities, where both were opened, was insisted on; Mr. Thornton pointed out the great difficulty of rendering the uterine cavity aseptic; and the use of the elastic ligature for the pedicle was advocated. The antiseptic method had many warm supporters, but Dr. Keith stated that with it, after having a succession of eighty successful cases, he had five deaths in the next twenty-five cases, two from carbolic poisoning and one from septicæmia, and two from acute nephritis. On account of this mortality, and of the very frequent high temperature the evening after the operation, he had abandoned the spray in all operations, and had had one death out of twenty-seven ovariotomies without the antiseptic treatment. Professor Czerny related a successful case of excision of the pylorus; and Mr. Tait referred to his experience in abdominal surgery, to show how the domain for surgical interference is extending to pelvic abscesses, etc. Of all the many surgical improvements of the last thirty years, there is none that can take a higher rank than this, and it appears that we have not yet learned the full extent of its value, or appreciated the degree to which the peritoneal cavity can be interfered with without a disproportionate danger.

The question of surgical interference with the kidney was raised and discussed by Czerny, Baker, Barker, Barwell, Lucas, Martin, and Langenbeck. All had cases of nephrotomy, nephro-lithotomy or nephrectomy to relate, and Dr. Martin stated that he had seven times removed a painful floating kidney, and once a malignant tumor of the kidney, with five recoveries in all. To aid the diagnosis of renal conditions, Mr. Barker suggested that in stone the kidney should be exposed from the loin and carefully explored with a needle, and the President considered the suggestion valuable. The difficulty of deciding whether pyelitis or suppurating sacculated kidney is unilateral or bilateral is a strong argument against performing such a severe operation as nephrectomy without being sure of removing the entire disease, and until diagnosis has advanced the application of this

treatment, it must be very limited. The excellent cases recorded show the feasibility of the three operations named above, and, as far as they may be taken as a guide, prove that nephrectomy is not more dangerous to life than nephro lithotomy and nephrotomy. Three methods of removal of the kidney were described, the lumbar, the intra-peritoneal, and the abdominal extra-peritoneal; the first would seem to be at once the most difficult and the safest, but Dr. Martin states that in removal of the kidney from the front of the belly, the peritoneum falls together so completely, that it does not even require stitching. A decision on this point must follow the more accurate diagnosis of the precise conditions in which removal of one of the kidneys is justifiable; it is on this point that most light is required at present. No detailed information was given of the physiological effects of removal of one kidney.

The next discussion was raised on the recent advances in the methods of extracting stone from the bladder of the male, and was opened by Sir H. Thompson, in a very able paper, continued by Professor Bigelow, and joined in by most of of the leading authorities on this subject. The question naturally divides itself into two—lithotomy and lithotrity. As to the former, the only novelty proposed was the use of the thermo-cautery instead of the knife, in both perineal and, especially, suprapubic lithotomy, with the view of avoiding hemorrhage and having a dry, non-absorbent wound. The objections to this plan are so obvious—viz, the formation of a deep slough, the inability to follow the exact steps of the operation and regulate the amount of damage—that they only require to be stated. More valuable were Mr. Teale's remarks on the improved results of lithotomy in late years, owing to the avoidance of septic diseases, and the greater deliberation in the extraction of the stone—a point most important always to bear in mind, for in this case rapid operating is not only uncalled for, but mischievous. Dr. G. Buchanan advocated the use of the rectangular staff, which makes the operation easier and safer; but Professor Spence, while praising it, pointed out that in cases of very large prostates its point may not reach the bladder, and so lead to trouble. Sir H. Thompson spoke hopefully of the plan of crushing a very large calculus *in situ* by powerful forceps before opening the bladder, and recommended a combination of lithotrity with an opening into the membranous urethra from the perineum in cases of greatly enlarged prostate with irritable bladder and urethra.

As regards lithotrity, it was admitted by all that Prof. Bigelow had not only introduced a new principle into the operation by insisting on the axiom that the bladder was more tolerant of instruments than of sharp fragments of stone, but that his practice was also an improvement. Out of ninety-one cases operated on after this plan by Sir H. Thompson, eighty-eight recovered. Beyond this, however, there was no agreement. Bigelow insists on the value of large instruments even for small and moderate-sized stones, and that his operation is suited for all cases of lithotrity. Sir H. Thompson is as earnest in contending that the instruments should be proportionate to the size and hardness of the stone, and never larger than necessary; while Mr. B. Hill thinks that there are many cases in which the old operation is better, the danger of injuring the deeper parts of the urethra in men of middle age being important. Mr. Teevan spoke of the entire absence of chronic cystitis after Bigelow's operation. As to whether the new operation has enlarged the field of lithotrity, Mr. Coulson spoke of having removed four ounces of stone at one sitting. Sir H. Thompson showed the débris of large stones thus removed, and the results of Bigelow's practice are well known; but Mr. Teale and Dr. Buchanan concurred in the belief that, except to the practiced lithotritist, such was not the case, and that the lithotrite could not be used with safety for a larger stone now than formerly, and that whenever in doubt, it was safer to lithotomize. Professor Bigelow showed his latest improvements in the lithotrite—a new simple catch, and in the exhausting bottle, the chief features of which are a hose attached to the top of the bottle to admit water, or give exit to air during the operation, and a new valve and trap at the junction of the catheter and exhausting tube, to catch all the dust and fragments that in the ordinary way pass to and fro in the tube, and so delay the evacuation. This is no doubt a direction in which improvement is needed, but it is a question whether this trap, or Mr. Clover's original simple contrivance be the better for the purpose. There is much in Mr. B. Browne's observation of the great desirablity of keeping surgical apparatus as free from complications as possible. Dr. Bigelow, at the close of the meeting, gave a very interesting demonstration of the use of his apparatus, and it must have been gratifying to him to find that among the differences of opinion on other points, all were agreed in ascribing to him full credit of his principle of practice, both for its novelty and its value.

To M. Ollier, was allotted the task of introducing the subject of Excision of Joints, and he laid stress on the value of the subperiosteal plan, and stated that when carried out, even the cartilage might be regenerated in the new joint; he preferred early to late excision. M. Rocher, of Berne, followed with his statistics of sixty four cases of excision, with six deaths; he has recently tried to obtain a movable knee-joint after excision. Mr. Newman related a very excellent case where drainage of the joint was successful in acute arthritis subsequent to disease of the head of the tibia. But the real question at issue was as to the desirability of the operation early or late in the disease. Mr. Bryant, Mr. Heath, and Mr. Marsh strongly advocated a limited use of the operation; they regard the disease as local, and as locally curable, and therefore consider excision out of place except after all other methods have failed and in advanced disease. On the other hand, all were agreed that in such cases the results of excision have been most disheartening; and for this reason and also because of the shortening of the total period of pain and illness, and of the connection of the local disease with general disease, others, Messrs. Croft, Teale, Treves and Barton recommend an early or very early resort to the operation. The arguments urged on each side are no doubt well

worthy of full consideration; it is, however, for those who operate to demonstrate the necessity for the practice. It is impossible not to see that those who urge operation very early will be led to operate when not necessary, as errors in diagnosis will occur to all; and further, such a practice will tend to draw attention from the main requisite—*a mode of cure of the disease.* Perhaps hardly sufficient stress was laid upon the excellent results given by free incision into chronically diseased joints. We should mention that Dr. Sayre showed drawings of a case of singularly perfect reformation of the hip-joint after excision; new cartilage was present.

The most important and best sustained of all the discussions took place on the causes of failure in obtaining primary union in operation wounds, and on the methods best calculated to secure it. Mr. Savory opened it in a very eloquent and philosophic speech, pointing out that primary union was most likely to occur when fresh surfaces are brought together in their natural state, and maintained so without disturbance. The chief cause of the failure he believed to be "meddlesome surgery," and essential principles were rest, cleanliness and asepsis, which admit of almost endless variation in detail. He asked, when a wound was septic or aseptic, was fever, or pus, or only smell to be the criterion? Defending his Cork statistics, he claimed that they had not been surpassed, though equally good results were obtained by many different plans of treatment, the actual process of healing being primarily independent of them all. Mr. S. Gamgee followed, and showed the antiseptic absorbent cotton pads he has used with success. As one proof of their antiseptic power, he showed a piece of meat which had been lying between two of them, but exposed to the air for fifteen seconds every day, and was perfectly sweet at the end of twelve days. The principles he laid stress upon were perfect dryness of the wound, thus removing one of the conditions of putrefaction, rest and infrequent change of dressing, circular compression, and suitable position, with the use of antiseptics as an important adjunct. Dr. Humphry spoke of the importance of a clean-cut wound in healthy tissues, very accurate apposition of the edges and surfaces with very careful closure of all bleeding vessels. The air acting injuriously both as a direct depressant of the vitality of the tissues, and through agents floating in it, it was only wise to use some form of antiseptic to purify the air. For Professor Verneuil, the disposition of the wound and of the patient are *the* great factors in the healing process. Professor Esmarch's statistics of his own practice are so remarkable, that they must be given in full. In 398 great operations (six deaths) 85 per cent. of the cases cured healed by first intention, with one dressing, in 15 per cent. the dressing was renewed; and this ratio had improved of late. There were 146 excisions of large tumors, 40 excisions of mamma and axillary glands, 14 castrations, with one death from pericarditis and old syphilis, one from apoplexy, one from fatty heart. Of 51 major amputations (thigh 18, leg 27, arm 5, forearm 1), one died from shock and hemorrhage, and one from delirium tremens. There were 61 resections; 11 exarticulations; 26 necrotomies; 13 nerve-stretchings, one for tetanus, which was fatal; 8 hernias, 21 large cold abscesses; 12 large wounds; 49 compound fractures. The cases were all dressed with pads soaked in iodoform and absolute alcohol (10 per cent.), fastened on by an iodoform bandage, over that a large pillow of jute and gauze, a moist bandage, and over all an elastic bandage. Professor Volkmann thought that all suppuration is septic, and that personal peculiarity in the main had nothing to do with the healing of a wound. Other evidence was offered and opinions given which only corroborated the above, and supported various ways of carrying out a dry dressing, with rest and compression combined with antiseptics, as advocated by Mr. Gamgee, whose labors in this direction have perhaps not been sufficiently recognized. Professor Lister wound up the discussion. In reference to Dr. Keith's experience, he stated that he had dissuaded him from using antiseptics in the first instances; in such an operation there is abundant room for effusion and means of absorption, while carbolic acid both increases the one and lessens the other; but on the whole he thought antiseptic ovariotomy had been successful. Referring to the experiments detailed at Cambridge, which showed that diluted septic poison may be added without effect to blood serum, though not to dilute blood serum, he further recited more recent experiments which showed that blood-clot in the body is still less favorable to the development of organisms. He expressed his belief that it is "solid bits of dirt" that are the deleterious agents, and that possibly too much attention has been paid to the finest particles floating in the air. His own results, however, were so good that he shrank from giving up any one of the details of the treatment by which he obtained them, although he quite admitted that he too might at some future time be able to say "*fort mit dem spray;*" at present he could not accept irrigation as a substitute for the spray. He denied that there was any ground for the charge that he disregarded the general condition of the patient or his hygienic surroundings. Were this true, his results being so good as admitted by all, what a strong argument it afforded to the efficacy of his merely local treatment! To give, in a few words, the general impression produced by the debate, we should say that the value of antiseptics was clearly recognized by all, that it was made evident that Professor Lister's aim may be attained by means other and simpler than his; that in particular the value of the spray is considered very doubtful; but more than all, that antiseptic treatment only answers one of the requirements of wound treatment, and that he only is a scientific surgeon who enlarges his views and practice to embrace all.

The final discussion was on the modification of syphilis in the tuberculous, gouty, and other constitutions, and was opened by M. Verneuil, who maintained that scrofula attracts syphilis to the organs it most commonly itself affects, and is apt to cause suppuration, but to remove the element of pain. Tuberculosis makes some tertiary syphilitic manifestations persist indefinitely. Mr.

Hutchinson had never seen a hybrid of syphilis and struma or tubercle or gout, nor had he been able to trace any modification of syphilis by these diseases, although the variations met with were no doubt to be explained by the idioscyncrasies of the patients. The antecedents of a patient did not enable him to predicate anything of the course of the acquired disease. In gouty patients he had often noticed severe bone and joint pains. He thought, however, that a severe form of ulceration of the face closely resembling lupus was to be accounted for by the influence of struma on inherited syphilis. Dr. Bennett knew of no modifications of rickety, gouty, or other bone changes that could be traced to syphilis, and he referred to the absence of information on the syphilitic changes in joints. Dr. Drysdale spoke to the existence of syphilitic phthisis from gummatous change. But so far as the discussion may be taken as a criterion of professional knowledge no satisfactory evidence of syphilitic hybridism, or of marked modification of syphilis by any other dyscracia, has been demonstrated.

(To be continued.)

EDITORIAL DEPARTMENT.

PERISCOPE.

Cremation vs. Inhumation.

In a lengthy article on the subject of Cremation, published in the Chicago *Medical Journal and Examiner*, Dr. C. W. Purdy sums up his conclusions as follows:—

1. That the present system of burial is attended with danger to the living.
2. That abuses of the system are frequent, and at all times difficult to prevent, and sometimes become so serious as to result in overwhelming whole communities with pestilence and death.
3. That a residence near crowded grave-yards predisposes to diseases characterized by evidences of slow poisoning.
4. That the system of burial as now practiced is necessarily attended with enormous expense, which is an oppressive drain on the resources of the poor. The author asserts that in the United States alone, over $100,000,000 are expended annually for funerals.
5. That the general adoption of cremation would dispose of the dead rapidly at a nominal expense, compared with inhumation, and with entire sanitary safety to the living.
6. That a similar disposal of the decaying organic products of large cities would tend to diminish the whole class of zymotic diseases, which at present are the cause of considerably more than one-fourth of our death-rate.

A Case of Chronic Pleurisy in which Two of the Chief Diagnostic Symptoms were Absent.

The following report of a case presenting some interesting features, by Theo. Westmoreland, M.D., of Athens, Ala., we take from the Nashville *Journal of Medicine and Surgery*, for August, 1881:—

On June 5th, 1881, I was called to see a negro man, aged 27 years; his breathing hurried and his effort in talking was labored; he complained of pain in his left breast; his appetite had failed him. As to the history of the case, he said, near two years before he had pneumonia, since which time his general health had been failing, yet he was able up to a few days of my visit to labor on the farm. Examination by percussion revealed dullness over the entire area of the left pleural cavity. Auscultation revealed an absence of the vesicular murmur over the entire lung; examination by measurement showed no difference; there was no bulging of the intercostal spaces. Diagnosis—chronic pleurisy, with effusion in the left pleural cavity. Two days later, assisted by Dr. P. C. Gaston, with the aspirator, there was withdrawn one hundred and thirty ounces of straw-colored fluid from the left pleural cavity. The relief experienced was immediate and very satisfactory. The vesicular murmur retained, with ability to inflate the whole lung. A large blister was then applied over the surface of the left breast. He was ordered compound syrup sarsaparilla with iodide potash, three times a day. Whisky was ordered in small quantities, frequently repeated. A good nutritious diet was prescribed. His improvement has been steady. To-day his health is good; no pain. The remarkable points in the case were the absence of two characteristic signs of effusion—want of enlargement of the affected side, as revealed by accurate measurement, and no bulging of the intercostal spaces; also the large amount of fluid contained in the cavity, and his speedy recovery.

Nerve-stretching for Locomotor Ataxy.

Dr. Charlton Bastian has recently delivered a clinical lecture, quoted in the *British Medical Journal*, at University College, on a marked case of locomotor ataxy, the symptoms of which he described very minutely. The patient was about forty years old, there was wasting of the muscles of the extremities, especially in the left leg and thigh; at length the movements of his legs became slow and jerky, after walking a few yards he would become exhausted and his legs would double up under him. Mr. Marshall cut down on the great sciatic nerve on the middle third of the right thigh and stretched it with his finger, pulling it twice upward from below, thence twice downward from above; antiseptic precautions were employed. About five weeks later, the right lower limb having markedly improved, while the left remained as it was before the right sciatic nerve had been stretched, Mr. Marshall operated on the left sciatic in the same manner. Troublesome diarrhœa followed, but

seven weeks later, when the patient tried to walk, his gait was found to be much better, and tactile sensibility, previously impaired in the lower extremities, had become perfect. The first operation was followed, in seven days, by the disappearance of a constant aching pain in the hypogastrium, which did not return, though slight pain was felt in the lower part of the chest. In a less advanced case treated in the same manner the improvement was but slight. The wounds, in these cases, were slow to heal. Dr. Bastian does not attempt to explain the mode in which nerve-stretching acts, but if it is found to do good it should be practiced. The manner by which many drugs act specifically on many morbid processes is quite unknown, yet that is no reason for not continuing their use when they are known to be beneficial in disease, and the same principle now applies to nerve-stretching.

Porro's Operation and its Result.

In answer to some inquiries in reference to this operation, we extract the following facts from various contemporaries:—

In 1876, Professor E. Porro, of Pavia, first performed the operation which now bears his name and has become fairly established. The results were completely successful, both mother and child surviving. The operation, performed for the delivery of pregnant dwarfs with narrow pelves, has been briefly described as follows, in a recent valuable paper by Dr. R. P. Harris. "After the evacuation of the uterus, its neck is constricted until all hemorrhage is arrested, the organ drawn out and cut away, and the stump secured, like the pedicle in ovariotomy, in the lower part of the abdominal wound. The operation has in almost all instances been performed under the spray of dilute carbolic acid, and the Lister method of dressing and management strictly carried out. Drainage tubes through the Douglas cul-de-sac and the abdominal wound have also been employed, sometimes to the number of three or four, but in almost every case at least one through the cul de-sac and vagina." The Müller modification, sometimes also called the "Rein and Müller method," is thus described by Dr. Harris. "Dr. G. Rein, of St. Petersburg, Russia, proposed, in 1877, that the uterus should be ligated to avoid all hemorrhage before it should be opened for the removal of the fœtus. Müller added to this the turning out of the uterus from the abdominal cavity by a long incision, before the ligature, and then evacuating it, so as avoid the risk of the entrance of its fluid contents into the abdomen, after which the operation is to be completed as in the Porro method." Dr. Harris, having collected a total of thirty six cases of Porro's operation, found that in seventeen cases the mothers, and in five cases the children had died; the others, nineteen mothers and twenty-six children, surviving. In the last twenty cases of his list there were twelve recoveries and eighteen children were delivered alive.

In a late publication, Professor Simpson gives the following case illustrating the operation:—

Mrs. B., aged 24, rickety, had had several craniotomies and still-born children. The internal conjugate diameter measured two and a quarter inches. She was anxious to have a living child, and accepted the proposition of delivery by Porro's operation. The operation was performed under carbolic spray. The abdominal incision was 14 centimèters long. The child was extracted while the uterus was *in situ*. The child was living, and at once began to cry. The uterus contracted on the placenta, which was not removed. A stout piece of whipcord, made antiseptic, was passed round the broad ligaments and cervix uteri, drawn tight, and firmly knotted. The broad ligaments and Fallopian tubes were then ligatured, as well as the isthmus uteri. The pedicle contained three ligatures; one controlling the ovarian arteries and venous plexuses on each side, a third embracing the isthmus uteri and uterine arteries. The uterus was then amputated at a distance of 1.5 centimèters above the ligatures. The whipcord ligature was removed. There was no bleeding from the stump. The ovaries were cut away last, and the whole surface of the stump secured with the Paquelin cautery. There was no escape or exposure of the intestines. The peritoneal cavity was carefully sponged out. In sponging the pelvic cavity, the central ligature was loosened, so the uterine stump was transfixed and ligatured again. The cautery was reapplied. The abdominal incision was closed with eight silkworm gut and four horse-hair sutures. The patient died on the the fourth day after the operation. The *post-mortem* examination showed a considerable quantity of serous exudation and lymph in the abdomen, which was distended. The abdominal wound was healthy looking, and adhesion had taken place along the whole line of incision. The intestines were matted to the pedicle with recent lymph.

Reflex Neuralgia Caused by Foreign Body in the Ear.

The following report of a case by Dr. C. F. Arney, of Altoona, Pa., we take from the *Medical Summary*, for July, 1881:—

Sadie C. came to me July 25th, complaining of a very severe pain in her left ear and temple, paroxysmal in character, shooting from the ear to temple, and sometimes as far as the forehead. The pain usually came on as soon as she arose in the morning, and continued until she would lie down, when it would at once cease. She also complained of a sensation of fullness and impairment of hearing in her left ear. She has had more or less pain in her ear ever since she can remember. Her last attack commenced about three months ago, and has continued about the same ever since.

With the aid of a speculum, I saw the ear was filled with hardened cerumen, which I at once removed, by means of a syringe and warm water. After the wax was removed I noticed a button sticking transversely in the external auditory meatus, so tightly that I was unable to remove it with a syringe, so I passed the hooked end of Prof. Gross's ear scoop behind it and drew it out, to the great surprise of my patient, who said, "I do not see how that ever got in there." I concluded, from the history of the case and size of button, that it had been in the ear for a long time.

Reviews and Book Notices.

NOTES ON CURRENT MEDICAL LITERATURE.

The following pamphlets received:—

——"The Functional and Morphological Relations of the Cerebellum." By Dr. E. C. Spitzka. Reprinted from the Chicago *Medical Review*, July 5th, 1881.

——A paper on the question of "Axillary or Ischiatic Support in the Treatment of Joint Diseases of the Lower Extremities." Read before the New York Academy of Medicine, June 16th, 1881, by Dr. W. B. Judson, of New York, and reprinted from the *Medical Record*, July 2d, 1881.

——Announcement of the Twenty-first Annual Course of Instruction at the *Bellevue Hospital Medical College*, New York (Session of 1881–82). The Collegiate Year embraces a Winter session and a Spring session. The Winter session for 1881–82 will open on Wednesday, September 21, 1881, and close in the latter part of March, 1882. The recitations, lectures, and clinics for the Spring session will begin in the latter part of March, 1882, and end about the middle of June.

——"Thoughts upon Vivisection, with Reference to its Restriction by Legislative Action." By Dr. George Hamilton. Extracted from the *Transactions of the College of Physicians, of Philadelphia.* This paper is valuable in so far that it comes from a calm and dispassionate physician, who, apparently, does not by any means undervalue the practical results derived from vivisection, yet shrinks from its practice, and it will thus have the effect of calling out its defenders to protect the interests of science. We believe the cruelties of the slaughter house require more legislative restriction, and if it were not for the fact that philanthropists often have as keen an appetite for delicious roasts as the barbarous physiologists, the butcher trade would soon be declared unlawful.

BOOK NOTICES.

Transactions of the College of Philadelphia. Third Series. Volume the fifth. Philadelphia: Printed for the College, and for sale by Lindsay & Blakiston. 1881. Cloth, 8vo, pp. 124.

The larger portion of this volume is taken up by the memoirs of Dr. George B. Wood, Dr. Isaac Hays, Dr. John Marshall Paul, Dr. James Aitken Meigs, Dr. Thaddeus L. Leavitt, Dr. John Neill and Dr. Isaac Ray. The remainder is taken up by the following papers, of some of which we have previously given abstracts in the Reporter: "Foot-binding in China," by Dr. Robert P. Harris; "Account of a case in which Heart-clot Occurred as a Co sequence of Uræmic Convulsions and Tumors in the Heart," by Dr. Arthur V. Meigs, with remarks upon the preceding paper, by Dr. John B. Roberts; "Report of the Committee on Meteorology and Epidemics for the year 1878," by Dr. Richard A. Cleemann; "Case of General Hyperostosis," by Dr. James H. Hutchinson; Cases of Starvation Fever," by Dr. J. M. DaCosta; "Report of a Case of Diabetes Mellitus, in which double Cataract existed, death occurring three days subsequent to an operation of extraction," by Dr. J. Ewing Mears; "Report of the Committee on Meteorology and Epidemics, for the year 1879," by Richard A. Cleeman; "Thoughts upon Vivisection, with reference to its Restriction by Legislative Action," by Dr. George Hamilton, with remarks upon the preceding paper, by Dr. J. C. Morris. Papers so numerous and on subjects as varied as they are important, evince activity and labor from which great results may be expected, among the fellows of the College.

Landmarks, Medical and Surgical. By Luther Holden, Ex-President, Member of Council and Member of the Court of Examiners of the Royal College of Surgeons of England; Consulting Surgeon to Saint Bartholomew's and the Foundling Hospitals; assisted by James Shuter, M.A. Camb., F.R.C.S., Assistant Surgeon to the Royal Free Hospital, etc., etc. From the Third English Edition, with additions by William W. Keen, M.D., Professor of Artistic Anatomy in the Pennsylvania Academy of the Fine Arts, etc., etc. Philadelphia: Henry C. Lea's Son & Co., 1881. Cloth, 12mo, pp. 148.

To the original work by Holden, which we reviewed on page 267, Vol. xlv of the Reporter, numerous additions—all enclosed in brackets—have been made by the American editor, who for the past twelve years has employed this method of teaching what he calls "Clinical Anatomy," using the living model as the chief means of illustration. In this edition three illustrations have been introduced (the original work contained but one), and notwithstanding the opinion of the English author that they would detract from the usefulness of the work, we cannot but think him mistaken. Certainly the diagram and table on page 60, showing the approximate relation to the spinal nerves of the various motor, sensory, and reflex functions of the spinal cord cannot but add to the value of the work.

THE

Medical and Surgical Reporter,

A WEEKLY JOURNAL,

Issued every Saturday.

D. G. BRINTON, M.D., EDITOR.

The terms of subscription to the serial publications of this office are as follows, payable in advance:—

Med. and Surg. Reporter (weekly), a year,	$5.00
Half-Yearly Compendium of Med. Science,	2.50
Reporter and Compendium, - - -	7.00
Physician's Daily Pocket Record, - -	1.50
Reporter and Pocket Record, - - -	6.25
Reporter, Comp. and Pocket Record, - -	8.25

For advertising terms address the office.

Marriages, Deaths, and Personals are inserted free of charge.

All letters should be addressed, and all checks and postal orders drawn to order of

D. G. BRINTON, M.D.,

115 South Seventh Street,

PHILADELPHIA, PA.

THE INCREASING PREVALENCE OF MALARIA.

There is a widespread belief among the public that malaria—paludal miasm—is decidedly on the increase in many parts of the United States. Forty years ago Staten Island was a healthy place to spend the summer; now it is notorious for the severe agues prevalent. A score of years ago chills were next to unheard of along the Sound in Connecticut; now they prevail with increasing frequency every autumn. Many valleys in New Jersey, New York, Pennsylvania, and Delaware, have for the first time witnessed malarial cases of local origin within a decade. In Philadelphia, it is the opinion of some physicians who have been in practice for many years that malarial forms of disease are obviously on the increase.

These facts add much to the interest with which the questions relating to malaria will be studied. Nor do they exhaust its interest. The malarial poisoning presents itself under protean forms, and often is the active cause of disease, where it is not suspected. Thus, in surgical relations, at the last meeting of the French Association for the Advancement of Science (April 1881), there was presented a paper by Professor VERNEUIL, on "The Surgical Aspects of Malaria." M. VERNEUIL thinks that the baneful influence of this poison is not sufficiently recognized by operatives. It may give rise to a number of apparently spontaneous external affections; it may unfavorably modify the progress of intercurrent or pre-existent surgical diseases; it may arrest or delay the healing of wounds, giving rise to complications of different kinds, which render the prognosis more than usually unfavorable. Traumatism in its turn reacts upon malaria, bringing it out, or reawakening it in individuals in whom it would otherwise have been dormant.

There are various lesions of the stomach, duodenum and liver, which arise from malarial poisoning, and cannot be brought to a favorable termination unless this is recognized. There is no doubt but there is a hybrid form of fever, to which the term *typho-malarial* has been applied, closely allied to enteric fever *plus* a malarial element, and that the symptoms and lesions are indicative of both poisons. No one can doubt this, who has had much to do with invalids from or in hot climates, and has had an opportunity of seeing how the malaria in their systems modifies the symptoms and progress of other affections from which they may be suffering.

As for the investigations into the efficient cause of malaria, we may say nothing definite is yet known. Any one who has studied this difficult subject knows the great variety of conditions and soils where this poison is found. Granting that the lowly organism, to which the name of *bacillus malariæ* has been given, exists in the soils examined by KLEBS and TOMMASI-CRUDELI, and has been found in the organs of those who have died of malarial fevers, is this *bacillus malariæ* to be found in some of the arid soils in the tropics, and elsewhere, notoriously fertile in malarial fever? This much seems certain; up to this date it has been searched for in vain in the malaria-producing soil of lower Bengal. We know that the

fever-producing rotten granite of Hong Kong and other places is permeated by a fungus; but is it the *bacillus malariæ*? The question appears not to be in a more advanced stage of proof than the well known theory of Dr. Salisbury of Ohio, who maintains that agues are not produced by any poison of telluric origin, but by the introduction into the system of cells and spores, emanating from certain plants called *Palmellæ*, which are of the lowest vegetable organisms. Dr. Salisbury gave the name of "ague-plants" to them, and like Klebs and Tommasi-Crudeli, demonstrated their presence in the organs of men affected with malarial fevers. It has always been thought a sufficient answer to Dr. Salisbury's theory, that such fevers prevail in regions where his "ague-plants" have no existence. It remains to be demonstrated that the theory of Klebs and Tommasi Crudeli is not open to the same objection.

In reference to the increasing distribution of malaria, it is worth noting that water is often the vehicle by which the malarial poison reaches the system, and that it is often charged with malaria at points distant from the places where it comes to the surface and is used. Thus, it happens that soils are often reputed malarious, when, in reality, the unhealthiness is due to the fact just stated.

Possibly also the poison, whatever it may be, may be carried by the winds. Various observations seem to show this. Persons living on the lee side of a marsh (with reference to the prevailing winds) suffer more than those to windward of it. The topic is one which seems to call for special investigation at the present time.

SECTIONAL ADDRESSES AT THE INTERNATIONAL MEDICAL CONGRESS.

The addresses before the various Sections of the International Congress were, as a rule, fully equal to the importance of the occasion. They were able embodiments of the questions which most interest workers in the respective Sections before which they were delivered. One point, to which we have previously referred in speaking of the proceedings of the Congress is also conspicuous in these addresses, and that is, the almost entire absence of any application of medical science to the practical treatment of disease. Although the main business of the physician is precisely this, it seems *infra dig.* for any one aspiring to a high position in the profession to speak of it! Such, at least, is the explanation which occurs to us to explain this anomaly.

Proceeding on the same plan as we did last week, we shall give brief notices of the various addresses before the Sections. That of Anatomy was by Prof. W. H. Flowers, F.L.D., F.R.S., etc. Speaking of the teaching of anatomy he said:—

> Anatomy is still taught in all our medical schools, certainly in this country, and I believe elsewhere, as if the body of man was something which stood alone and apart from all other entities; instead of being but a highly specialized and peculiarly modified form of a vast array of structures of similar organization. If any generalizations are permitted, or allusions made to other modifications of such organization, they are only superadded, as a sort of additional burden of knowledge, which may or may not be learned; but they are never made the basis upon which the whole of the study depends—the key, or index, as it were, without which a reasonable and intelligent view of the subject cannot be obtained.
>
> Though thus indicating the fact that the study of human anatomy has still a great future before it, I am not sure that the time has yet arrived, at all events in the ordinary course of teaching, to initiate the great change that must inevitably come. We may take warning by the vacillating progress of biological ideas during the last few years—by the epochs of architypes and vertebral theories through which we have passed—and not feel quite satisfied that we are yet in a position to undertake a complete remodeling of our anatomical teaching on a permanent basis. There is still vast room for exploration upon the border land of human and so-called comparative anatomy, both in the accumulation of new facts, and of new ways of interpreting those facts. The individual variations met with in the human body, which are now receiving so much attention in the anatomical schools, still present a wide field for research; and their records should not only be greatly added to, but require collation, comparison, and reasoning upon. The value of such observations increases with their number; relative frequency being the principal element in estimating their importance. The study of such variations as have acquired permanency by successive inheritance, or the so-called race-characters, might well engage an army of careful and conscientious workers. But how few, in this country at least, follow the example of persistent and patient concentration shown by some of our brethren in Germany and France.
>
> A truly scientific human anatomy will not have been accomplished until the essential nature of

each structure of the body has been made manifest by tracing it through all its modifications in other animals, in all races of man, and in its individual variations in our own race. Our endeavor should be to show where it first appears in the series of organized beings, where it exists in a rudimentary condition, and where it is more fully developed, and has a more important function than in man; to show, in fact, where it came from, how it came, and why it has assumed its present form.

Prof. FLOWERS then proceeded to describe the Hunterian Museum of Anatomy now in the possession of the Royal College of Surgeons. John Hunter devoted thirty years of his life to preparing it, and the whole of his large income. He was estimated to have expended $350,000 upon it, and at his death this immense collection was the sole property he left behind. It was bought by the Government for $75,000. The specimens in it are many of them a hundred years old, but in perfect preservation, and Hunter's dissections have never been surpassed.

The address before the Section of Pathology was by Dr. SAMUEL WILKS, F.R.S., etc. He spoke as follows about the relations of pathology to physiology:—

Pathology has received various definitions, the most common being that which contrasts it with physiology; for, as the latter is regarded as the science of healthy organic life, so the former has been held to be the science of the unhealthy, or of the abnormal course of life contrasted with the normal. This division of vital action into normal and abnormal is true in a superficial sense, and might be made theoretically to stand as a definition; but it is by no means applicable to our practical science of pathology, nor can it be made of any value as an expression of diagnostic knowledge in treating the thousand ills to which flesh is heir.

In the first place, it must be admitted that the changes which occur in every organic structure, as years roll on, are to be regarded as normal, unless we take an imaginary or ideal standard of a being living in some former golden age, where nought was known but perpetual youth, and regard every departure from this as morbid. Although we do not frame such a picture to ourselves, but know that the various changes in the bones, the cartilages, the lungs, the brain, and other parts, which take place in age, are in harmony with the dictates of Nature, yet how often are we called upon to treat these changes as forms of disease? They are, however, no more unnatural or pathological than the sere and yellow leaf which falls from the oak in autumn.

If, however, these senile changes occur prematurely, they will then be abnormal, and may be strictly regarded as morbid. Herein is one form of a pathological condition with which we have to deal—a premature decay arising from the various causes which bring the organism to an end, either from their operating with unusual force, or from some inherent weakness in the body, which is unable to moderate their action. Now, if all these potent influences, instead of driving the mechanism too quickly, and so bringing it prematurely to an end, concentrate their forces upon one organ only, that organ would become, in ordinary parlance, diseased; but the process there set up may be of exactly the same nature as time would otherwise have produced. In comparatively young persons, for instance, we meet with fibroid and fatty changes in the heart and vessels, distention of the air-cells, alterations in the structure of bones and joints, which resemble in every respect those which age would have ordinarily induced. Therefore, many of the conditions which we call disease seem nothing more than the result of the concentration on a particular organ of all those agencies which, under ordinary circumstances, bring about senile changes. These changes, therefore, although senile in character, are abnormal, and therefore may be rightly regarded as pathological.

The pathologist, therefore, cannot but regard the body, in the first place, in its physiological relations with its surroundings, and mark the alterations which time produces. The physiologist is aware that the production of force must be accompanied by loss elsewhere, seeing that gain and loss are equal; and, therefore, in observing organic life, he must regard the destructive processes as well as the formative. Life seems to depend upon changes continually going on in relation with the atmosphere in which all living bodies are steeped. The burning of the fuel in oxygen supplies the forces necessary for living processes; we, therefore, although alive, are constantly being consumed.

Pathological changes, he maintained, obey the same laws that we are familiar with in other biological processes, and it is part of the future of pathology to demonstrate these identities. Hence:—

If the specific disease be due to organisms, and the hypothetical *contagium vivum* be a reality, it must be subject to the same laws as other organic matter; and, if the doctrine of evolution be true, it must have numerous relations with families of its own kind, and perhaps with others which are now obsolete. This idea has occupied the minds of several medical men in this country, and it will no doubt further fructify in their hands (Dr. Airy, Dr. Thorne, etc).

A highly contagious disease prevailing in a particular locality may be exhibiting the differentiation of some more simple, less virulent, and widely spread disorder. For example, a slightly contagious epidemic sore-throat might, in course of time, develop into a more virulent one, until it culminated in diphtheria; and, if this disease be due to an organism, the latter might have found a more genial soil for its development, or be altered by propagation and time, so that new properties might at last have been added to it. There may be a progressive development of in-

fectiveness. Then, again, the doctrine of natural selection might obtain in the fact of some specific diseases remaining among us, while others have become obsolete. The same law, too, if allowed its full operation, might tend still more than it does to the subjugation of many hereditary diseases; for, as these appear in youth, and often cause death, they would fade away by a process of self-destruction. As regards the specific diseases, we see again how the most susceptible persons would be struck out by the poison and the least susceptible remain, so that the poison would be modified in its virulence. We witness this fact in the more moderate characters of the exanthemata in all civilized nations, in comparison with the more profound effects produced by them in nations where the diseases had been hitherto unknown, as, for example, the fatality in the Pacific Islands of our comparatively mild British measles.

The old definition that pathology is a deviation from the healthy standard is no longer tenable, and fails before the present wider generalization of that science.

The Section of Medicine was addressed by Sir WILLIAM GULL. Pathology, physiology, and diagnosis were the principal themes he referred to. In regard to the relation of sciences he said:—

Some have prophesied that the advancement of the biological sciences will leave medicine a barren waste in their midst; but such a result, in the natural course of things, cannot happen. There is an indissoluble union between all the sciences, which, for medicine especially, human interest will ever strengthen. The past history and the present state of our profession give us abundant assurance of this. It is not too much to assert that the study of medicine will, for all time, attract a large proportion of the best thinkers and workers of the world. It has ever been so; and what has been, doubtless shall be in the time to come. Besides, almost every germ of scientific thought has sprung in some way from medicine; and I have only to remind you that some of the most illustrious physiologists and pathologists of to-day are members of our own profession. And if, from the delicacy, intricacy, and the demands made upon all the powers of the intellect by the extent and character of their investigations, they have, as it were, turned aside from immediate clinical work, they are still so much in union with us that we daily at the bedside avail ourselves of the results of their labors, and gratefully acknowledge that they are our ministering angels, ascending and descending upon the ladder of science in the furtherance of all good practice.

On the general theories now prevailing in explanation of physiological action, he observed:—

It may be not uninteresting to notice how "solidism" is widely reasserting itself in the science of living things; not as an *à priori* system, but through the progress of knowledge. The proximate conditions of pyrexia are no longer vaguely referred to nerve, but to definite nerve centres; hyperæmia and inflammatory changes to sympathetic lesions; abnormal chemistry to the great respiratory centres; the strange conditions of Addison's disease, with its characteristic pigment, to the suprarenal bodies, themselves probably but nerve centres, and related, at least by structure, to the system of the pituitary gland; epilepsy, supposed in Hippocratic times to be due to extraneous maleficent spiritual influences, is traceable to apparently trifling changes in a few gray nerve-cells. The specific fever-processes notoriously owe much of their character and intensity to the nervous system. Their relation to time, their occurrence only in warm-blooded animals, the great mortality they cause through nerve exhaustion, and the immunity they leave behind them, indicate that, whatever may be the nature or mode of operation of their several poisons, it is by implication of nerve-elements that fever obtains its chief clinical characteristics.

Further, in the advance of "solidism," what can interest us more than the recent investigations on contagia? Perhaps no more important step has been made in practical pathology than the proof that some, at least, of these contagia are organized solids. This discovery, which it has tried the patience, experimental skill, and scientific criticism of the best observers to establish, has brought us at length within view of that which has hitherto been so mysterious. To have been able to separate, though imperfectly, the contagious particles; to have come to the conclusion that no fever poisons are soluble—is a hopeful preliminary towards forcing them to yield up the secret of their nature.

If "solidism," as a theory of organic processes, wanted confirmation, we could point to nothing more striking than the present established views on putrefactive changes, and to the amazing fact that the normal textures and fluids of the body resist decomposition unless invaded by microscopic organisms.

May we not hereafter find that all organic chemistry is the resultant of mechanical changes in organic solids? all Nature, in fact, as Newton asserted, mechanical, but the Great First Cause? Of this we are admonished on all sides. Histology, physiology, pathology, clinical medicine, teach us more and more the supreme importance of *form* and *relation*.

The Surgical Section was opened by Mr. JOHN ERIC ERICHSEN, F.R.S., etc. He reviewed, seriatim, some of the more important subjects that had been set down for the consideration of the Section. He expressed some doubt as to the propriety of "surgical audacities" on intra-peritoneal tumors, now so fashionable. Of operations for stone he said:—

In lithotomy we see much of change, possibly something of novelty, but not so certainly anything of real progress. Have we, indeed, advanced one single step, either in the perfection or in the results of that operation since the days

of Cheselden, of Martineau, or of Crosse, not to mention the names of more recent, but equally illustrious, surgeons and successful operators? The revived median, the combination of it with lithotrity. the suprapubic, whether done antiseptically or not, have certainly not been very encouraging in their results, and can scarcely claim to be considered in the light of an advance on the old lateral operation, in skillful hands. But yet we must admit that these methods of lithotomy may deserve this consideration; that possibly, in some forms of calculus, and in certain conditions of the urinary organs, a wise eclecticism may be exercised in the choice of one or other of them. In lithotrity, however, it is probable that a great and real advance has been made, and certainly it is undoubted that a complete revolution has been effected by the enterprise and skill of one of our American brethren; for it cannot be questioned that "Bigelow's operation" has completely changed the aspect of lithotrity, and there is every reason to believe that it constitutes one of those real advances in a method which marks an epoch, not only in the history of the operation itself, but in the treatment of the disease to which it is applicable.

Of course, the great subject of the proper treatment of recent wounds, could not be overlooked in such an address. He says of it—

From the earliest dawn of human intelligence, the attempt to cure a wound must have suggested itself to man; and yet, at the close of the nineteenth century we are still discussing the best methods of doing this, and the causes of their failure. There is still difference of opinion and of practice among surgeons, not only as to the comparative advantages of the "open air" method, and that in which all atmospheric contact is carefully guarded against; of the "dry" and of the "moist" system of dressing; as to whether the "antiseptic method" in a modified form suffices, or whether the more elaborate system of local treatment before, during and after an operation, which has been devised by the skill and worked out by the unwearied labor of Lister, be essential in all cases of operation wound. Not, of course, for its primary union—for this may be obtained by any and every of the methods mentioned. If it be contended that this system is necessary for the safety of the patient, and the due healing of the wound in some cases, has it been proved to be equally essential in traumatic lesions of all tissues, of all organs, and of all regions? These are questions that may well deserve the consideration of this Section. But there are others of a yet wider character that must also engage our attention in any discussion on the best methods of securing primary union in wounds, for it is impossible to fail to recognize in the general constitutional state of the patient, a most important factor in this direction; and we should be taking a narrow view of this many-sided question if we did not give due weight to the influence of those hygienic conditions which, if faulty, are inimical, or even destructive, to the due performance of those actions which are necessary for the maintenance of the organism in a healthy state, and for the proper nutrition and consequent repair of the tissues of the body. Is there no fear that, in some of the modern systems of treating wounds, we are in danger of expending all our precautions in the prevention of the local, and of ignoring the risk of a constitutional, infection?

The speaker then passed to the consideration of recent projects for the management of aneurisms:—

The treatment of aneurism is one of those great questions which, from an early period in the history of modern surgery, has occupied the attention of practitioners, and has undergone no little fluctuation. A few years ago, the battle between the ligature and compression appeared to have been decided in favor of the latter: but the invention of improved ligatures, made of various kinds of animal tissue, and applied with antiseptic precautions, has once more inclined the balance of professional opinion towards the Hunterian operation. But now, again, the practice of compression has received renewed strength from the employment of Esmarch's elastic bandage in the cure of certain forms of external aneurism; and it is for you to determine in what cases it can be used with advantage, and in what way a cure is effected by its means. For, in the treatment of aneurisms, as in that of so many other surgical diseases, the wiser and more scientific course is to follow a judicious system of selection in the method to be employed in each particular case, rather than to subject all to one unbending line of practice.

Chronic joint diseases, the permanence of syphilitic infection, and malignant tissues were other subjects to which he briefly referred.

The address on Obstetric Medicine, by Dr. ALFRED H. MCCLINTOCK, was a brief review of the history of the art, especially in England. It appears rather too local in coloring to suit the occasion, and does not offer anything which need be extracted.

The Section on Diseases of Children was opened by Dr. CHARLES WEST. He summed up in a few words some of the most important advances which this branch has gained during the last five and twenty years. Thus he says:—

The vague phraseology which served for years to conceal our ignorance, even from ourselves, has been to a great degree done away with. We talk no longer of worm fever, remittent fever, gastric fever, and so on, for under these various names we recognize the one disease, typhoid fever, varying in severity, but marked always by its own characteristic symptoms. Half a page in a hand-book was all that was to be found thirty years ago concerning heart disease in childhood, while at the present time the frequency of heart disease has been fully recognized, and it has been studied with as much care in the child

as in the adult. The various inflammations of the respiratory organs are no longer looked on as a whole, but each is referred to its proper class, and we distinguish lobar and lobular pneumonia, bronchitis and capillary bronchitis, and assign to each its proper place and its characteristic symptoms. Nor have our therapeutics lagged behind. I remember the hesitation with which, some forty years ago, my dear friend and master, the late Dr. Latham, decided on tapping the chest of a boy eight years of age, who was received into St. Bartholomew's Hospital on account of a pleurisy which had terminated in empyema; and the delight—the wonderment, almost—with which we regarded the successful issue of the operation in a child so young. A few months ago I communicated to the Medical Society of Nice the particulars of fifty cases in my own practice, where paracentesis of the chest had been performed at my desire, and several of you gentlemen could relate as many cases, or more. That once almost unrecognized disease, diphtheria, has been studied with the greatest care; its relation to membranous croup has been investigated; the close connection of the two has been demonstrated. I, for my part, should not hesitate to say their absolute identity has been established. Much light has been thrown on various diseases of the nervous system. That once enigmatical affection, the so called essential paralysis of infancy and childhood, has been shown (in the first instance by the researches of my friend N. H. Noger and his able coadjutor M. Damaschino) to be due to an acute inflammatory softening of the gray matter of the anterior columns of the spinal cord; and twenty-five recorded observations since that time attest the truth of their discovery. Though, strictly speaking, perhaps not a disease of the nervous system, the pseudo-hypertrophic muscular paralysis of Duchenne claims mention here as a new and important addition to our knowledge of the pathology of early life.

Mr. Erasmus Wilson, f.r.s., etc. opened the section on Dermatology with an address on the proper method in studying diseases of the skin, and suggestions for the extension of their study. We make the following extract:—

For therapeutical purposes all diseases of the skin might be assembled, if we except syphilis and diseases proceeding from local causes, under three heads, namely: diseases depending on disorder of digestion and assimilation; diseases depending on disorder of innervation; and diseases of nutrition. As an example of the first kind we might take eczema, with its multitudinous manifestations. As an example of the second we should have pruritus and prurigo; and as examples of the third, papilloma and fibrosis. But we cannot fail to recognize the fact that, practically, there is a greater or less blending of the whole. The pruritus of eczema belongs to disordered innervation; and aberration of nutrition may be accompanied with symptoms which appertain to both the others. Thus, in the lepra of Wilan, the psoriasis of modern schools, we have a disease which is due to altered nutrition of the skin, from defective organization of that structure. But as the nerve-power or life-power of the skin is insufficient to restrain abnormal function, so—capillary congestion constitutes a part of the disease; and the hypertrophous growth of papillæ and excessive production of morbid epidermis must be regarded as passive nutritive change or passive growth. In ichthyosis, with a starved condition of the skin as far as nutrition is concerned, we have an excessive papillary growth, an excessive accumulation in the shape of altered epidermis. But still more interesting illustrations of abnormal nutrition are evinced by excess or defect of pigment; by the substitution of a lowly for a more highly organized tissue, as in fibrosis, and by the exuberant proliferation of cell-tissue of low organization which is met with in the instances of tinea, of favus, and of epithelioma.

In the Section on Diseases of the Teeth, the address was by Mr. Edwin Saunders. As it contained little to interest the general practitioner, we pass to that of Dr. John Simon, delivered before the Section of Public Medicine. He opened with general remarks on the meaning and scientific method of State Medicine. He pointed out that experiment was the basis of scientific progress. It has already effected immense changes for the better.

Let me briefly refer to the fact that, during the last quarter of a century, all practical medicine (curative as well as preventive) has been undergoing a process of transfiguration under the influence of laboratory experiments on living things. The progress which has been made from conditions of vagueness to conditions of exactitude has, in many respects, been greater in these twenty-five years than in the twenty-five centuries which preceded them; and with this increase of insight, due almost entirely to scientific experiment, the practical resources of our art, for present and future good to the world, have had, or will have, commensurate increase. Especially in those parts of pathology which make the foundation of preventive medicine, scientific experiment in these years has been opening larger and larger vistas of hope; and more and more clearly, as year succeeds year, we see that the time in which we are is fuller of practical promise than any of the ages which have preceded it. Of course, I cannot illustrate this at length, but some little attempt at illustration I would fain make.

First, let us glance at our map. When we generalize very broadly the various causes of death (so far as hitherto intelligible to us) we see them as under two great heads, respectively, autopathic and exopathic. On the one hand, there is the original and inherited condition under which, to every man born, there is normally assigned eventual old age and death, so that, sooner or later, he "runs down," like the wound-up watch with its ended chain; and, as morbidities under this type, there are those various original peculiarities

of constitution which make certain individual tenures of life shorter than the average, and kill by way of premature old age of the entire body, or (more generally) by quasi senile failure of particular organs. On the other hand, as a second great mass of death-causing influence, we see the various interferences which come from outside; acts of mechanical violence, for instance, and all the many varieties of external morbific influence which can prevent the individual life from completing its normal course.

As regards cases of the first class—cases where the original conditions of life and development are such as to involve premature death (which in any such case will commonly show itself as a fault in particular lines of hereditary succession)—the problem for preventive medicine to solve is, by what cross-breeding or other treatment we may convert a short-lived and morbid into a long-lived and healthy stock; and this, at least as regards the human race, has, I regret to say, hardly yet become a practical question. But as regards cases of the second class, evidently the various extrinsic interferences which shorten life have to be avoided or resisted, each according to its kind; and here it is that the scientific experimenters of late years have been giving us almost daily increments of knowledge.

The speaker had a great deal to say against the vivisection act in England, which he believed to be a heavy detriment to the cause of science, and a great injury to the public welfare.

The Section of Military Surgery and Medicine was opened by Prof. C. LONGMORE, C.B., etc., in an address of considerable length, in which he gave an explanation of the system by which help is arranged to be afforded to the wounded army troops on active service, according to the existing regulations of the British army.

In the Section of Materia Medica and Pharmacology, Professor FRASER, F.R.S., delivered the opening address. The earlier portion of it was a historical review of the progress of these related departments. He also dwelt on the experimental method and its value, quoting various examples, particularly the action of digitalis and anæsthetics.

The former substance was introduced into practice by Drs. Cullen and W. Thormic. Towards the end of the last century, and, therefore, answering to the inauguration of the experimental method, and to the foundation of pharmacology as a science, it was introduced as a remedy for dropsy; and on the applications which were made of it for the treatment of that disease, a slowing action upon the cardiac movements was observed, which led to its acquiring the reputation of a cardiac sedative. Numerous observations were made on man by the originators of its application, by Dr. Sanders and by many other physicians, in which special attention was paid to its effects upon the circulation, but no further light was thrown upon its remarkable properties, with the unimportant exception that in some cases it was found to excite the circulation. It was not until the experimental method was applied in its investigation, in the first instance by Claude Bernard, and, subsequently, by Dybkowsky, Pelikon, Meyer, Boehm, and Schmiedeberg, that the true action of digitalis upon the circulation was discovered. It was shown that the effects upon the circulation were not in any exact sense sedative, but on the contrary, stimulant and tonic, rendering the action of the heart more powerful, and increasing the tension in the blood vessels. The indications for its use in disease were thereby revolutionized, and at the same time rendered more exact, and the striking benefits which were now afforded by the use of this substance in most diseases were made available to humanity.

The introduction of anæsthetics into medical practice has certainly produced more benefit than that of any class of substances. The insensibility which they produce is a condition which can be readily established by the most crude method of experiment, as it requires merely the exhibition of the substance and the observation of the effect; and this simple process of investigation is that by which their introduction was effected. Following upon this introduction and the wide extension of their employment, however, it was soon found that insensibility was not their only effect. They produced insensibility, but they also produced other actions, which assumed a grave importance, as they were occasionally sufficient to destroy life. The nature of these additional actions became, therefore, a matter of interest, for upon them apparently depended many questions governing the indications for the use of anæsthetics, and the treatment which should be adopted in order to avert or counteract their dangerous effects. No sufficient light, however, could be thrown upon them by the simple experiments which were sufficient to prove that these substances produce insensibility. By observing the phenomena presented by a patient in the anæsthetic condition, the mechanism by which the dangerous effects were caused could not be revealed. It could not even be determined whether death were produced by an action upon the brain, or upon the heart, or upon the respirations. The necessity for extending the investigations of their action to lower animals, in whom the experimental conditions could be controlled and varied, became obvious, and the researches which have already been undertaken by Hermann, Bert, Ferguson, Coates and McKendrick, have furnished much information with regard to those difficulties, that could not be solved by mere observation of effects in human beings. They have provided indications for forming an opinion of the relative dangerousness of many anæsthetics, of the class of cases in which each should be specially avoided, and of the means by which their dangerous actions may best be counteracted; and it is needless to remark that, if results of such importance can be obtained by no other means than by experiments upon the lower animals, the performance of such experiments is an imperative duty.

This naturally led him to criticise with great severity the opponents of vivisection and experiments on animals. He referred to the experience which had already been had of it, and expressed his conviction that the welfare of science in Great Britain imperatively demands the repeal of the obnoxious acts.

To us the matter bears a most serious aspect. To us it is as clear as the light of day, that the action of remedies cannot be ascertained otherwise than by experiments on the lower animals. If this method of research be denied to us, what means are we to adopt for increasing the resources of our art? How are the rich treasures which the enterprise of travelers and the never-ceasing discoveries of chemists place at our disposal to be applied, as hitherto they have in so many instances been most beneficially applied, to the treatment of disease? How are we to discover antidotes to the poisonous action of toxic agents? Experiments on man with substances regarding whose properties no knowledge exists will ever be repugnant to medical science; and on that account, as well as because of their entire insufficiency, they cannot be adopted as substitutes for experiments on the lower animals.

Is, then, the progress of pharmacology to be brought to a termination, and the treatment of disease to lapse into the former irrationalism, so distasteful to present aspirations, which are anxiously striving to attain exactitude in the art of medicine?

So far as this country is concerned, this result must inevitably occur, unless we obtain our knowledge entirely from other countries, or unless the freedom of research is again asserted among us.

Such were his closing warnings; and we have been particular in quoting them, and in indicating how general is this feeling among our English colleagues, because there are constant efforts made in this country to secure the enactment of similar short-sighted legislation.

Notes and Comments.

Diffuse Inflammation of the External Auditory Canal.

Mr. E. Cresswell Baber, M.B., in a paper on this subject in the *British Medical Journal*, states that the disease must be distinguished from the circumscribed variety, where small abscesses form in the meatus. In diffuse inflammation the walls of the meatus swell uniformly, so that often the smallest speculum cannot be introduced. When the swelling subsides slightly, a speculum well flattened at the inner end will show the tympanic membrane recognizable only by its position, the manubrium of the malleus and the light spot being hidden by the thickening, through inflammation of the epidermic layer of the membrane. Free secretion often exudes from the walls of the meatus, without any perforation existing in the membrane. It is most important to diagnose this complication in healing this disease. For treatment, leeching is useful, and care must be taken that the leeches are applied close to the ear. Incision of the inflamed tissues in the meatus is necessary when the case is severe, with danger of the adjacent bone being affected. An hourly injection of five to ten drops of a solution of acetate of morphia (16 grains to the fluidounce) greatly relieves the pain. In the chronic stage the surgeon should frequently cleanse the meatus with cotton wool, this is less irritating than the syringe. Glycerine of borax is the best lotion for injection.

Treatment of Chronic Eczema.

In chronic eczema, when there is no acute inflammation, local excitants may be used, which, according to the degree of irritation it is desired to induce, may be divided into three classes: 1st, Those which induce slight irritation, as tar and oil of cade, but in much stronger proportion than in acute eczema:—

℞: Picis vel ol. cadini, ℥ss
Glycerit. amyli, ℥j. M.

Sometimes, also, the tincture of iodine and the different mercurial ointments are used.

If these prove unsuccessful, agents of the second class, or those which produce moderate irritation, may be used; the most active of these is the black or green potash soap; a thin layer is spread on flannel and this is kept applied to the affected parts for three or four days. This will induce active inflammation of the dermis, which may be moderated by emollient applications, starch powder, etc. It is an active and very painful method, which should be used only in obstinate cases.

Finally, if no benefit be obtained, recourse may be had to the third class of medicaments, which induce violent irritation, such as lotions containing corrosive sublimate and the following, recommended by Hebra:—

℞. Potass. caustic, 1 part
Aquæ destill., 2 parts. M.

This solution is painted over the affected surfaces with a camel-hair pencil, then compresses dipped in cold water are immediately employed and allowed to remain covering the parts. It is not generally found necessary to employ the solution more than ten or twelve days.

Intramural Interment.

In the *Revue Scientifique*, June 18, M. Robinet maintains that cemeteries in cities are harmless. He says:—

"We are able to affirm that up to our own times not a single positive example of injury can be laid to the charge of the cemeteries of Paris. We may thus with a good conscience assure the public in this respect, and deplore with the illustrious Fourcroy the abuses which some persons have made of discoveries in physics and modern chemistry, to increase and multiply the complaints against the air of cemeteries, and against its effects on the neighboring houses. Let those say so who have not the courage to bear it, that the spectacle of mortality should be removed from our sight, and that in our present life of feverish industrialism we have no time to spend over the dead, and let the speculator banish from Paris the fields of sepulture. But, at all events, let them cease to invoke science and hygiene, and to declare that cemeteries are really centres of infection, and that they are able to develop the germs of the most serious diseases. Let them cease frightening the ignorant public by mere phrases and sonorous words. It is very easy to declare and repeat everywhere that cemeteries are the source of dangerous emanations, but assertions are not proofs."

The Malarial Poison Germ.

M. Burdel (*Le Progrès Méd.*, No. 18, 1881) has made numerous experiments, at first on sheep, then on himself, and afterward on other persons, with dew obtained from marshy pools, or water containing microzoa, microspores, filaments, bacilli, etc., obtained from the air over marshes, and never observed any phenomena approaching the symptoms of true intermittent fever. The micro-organisms found in malarious places vary in genera and species, with the places, time of day and season in which they are observed.

Electricity in Ear Disease.

Dr. Woakes (*British Medical Journal*) believes that muscular paralysis is a most important factor in the causation of deafness and its concomitant symptoms, in a very large proportion of those cases of the disease which occur in adult life. Electricity is not of invariable benefit, since chronic aural affections, where the function of the Eustachian tube is interfered with, produce congestion of the middle ear, which the electric current aggravates. In cases where electricity is suitable, a very weak induced current, applied only once a week, is beneficial. Weber-Liel's intratubal electrode is the most convenient instrument for galvanization of the tensor tympani muscle. The tensor palati may be galvanized by means of a large larnygeal electrode applied over the soft palate in the course taken by the muscle on each side of the uvula, the circuit being completed by placing the sponge-holder attached to the other pole over the mastoid process of that side corresponding to the side of the palate to which the larnygeal electrode is being used.

Temperature in Pregnancy.

Prof. Peter asserts (*Léçons de Chir. Méd.*, vol. ii, p. 658) that in pregnancy the temperature in the fifth and sixth intercostal spaces is higher or equal to that of the axilla; as this is contrary to the usual conditions, he deduces that the lung has a higher temperature than usual, and therefore contains a greater quantity of blood, thus predisposing to simple and inflammatory congestion. MM. Cazzie et Nicola and M. Marchionneschi having made experiments to verify this assertion, have concluded (*Annali di Ostetrica, Ginecologia, etc.*, vol. ii and iii) that the temperature in the intercostal spaces is constantly inferior to that of the axilla; while it is but 36.2° C. for the former situation, in the latter it is 37.1°. The temperature over the uterus is somewhat lower than that of the intercostal space, although the uterus is at this period as rich in blood as the lung. M. Marchionneschi, in a series of similar and very careful experiments, arrived at the same conclusions, so that the 'poumon chaud' of the Paris professor is not borne out by facts.

On the Incision in the Operation for Strangulated Hernia.

Mr. Paul Swain, in a paper on this operation, in the *British Medical Journal*, objects to the usual practice. After the first incision through the skin, a bit of tissue is pinched up with the forceps and nicked with the scalpel, so that a director can be introduced under the tissue, which is then divided by the scalpel. But unless the scalpel be very sharp the tissues recede before it, and it is very difficult to keep the deeper incisions as large as the superficial one. The scalpel is also very apt to slip off the director. Mr. Swain uses, in place of the scalpel and director, the blunt curved scissors used for extirpation of the eyeball, and finds that the operation can thus be performed with greater rapidity, neatness and safety.

Special Reports.

NO.—XVI MIDWIFERY.

(*Concluded from p.* 306)

Rules for the Forceps.

The following rules, which differ from those found in most text-books, have been defended, in the *British Medical Journal*, July 9th, by Dr. Henry Lowndes:—

1. Traction should be made in the intervals, instead of during the pains.
2. When traction is not being made, the handles of the forceps should be allowed to lie as far apart as they will.
3. During the pains the handles should be merely gently managed, so that they may not be expelled or do hurt.
4. During the passage of the head through the vulva, the forceps should be used, when necessary, as a restraining power during the pains, and labor completed by traction during an interval.

The first of these is the most at variance with ordinary teaching. He defends it on the ground that if we make traction during a pain, we are pulling against both the child and the contracted uterus, and when the head is higher up in the pelvis than during an interval.

Milk Diet as Preventive of Eclampsia.

In the *Gazette des Hôpitaux*, May 14th, 1881, M. Chantreuil records a considerable number of cases of general dropsy, with albuminuria, occurring in the later months of pregnancy, in which, under milk diet, puerperal eclampsia was apparently prevented. One may be selected as an example. A woman in the seventh month became affected with general anasarca; legs, thighs, and abdomen very œdematous, face swollen, the lungs being also invaded to such an extent as to cause the most alarming dyspnœa. The urine contained a large quantity of albumen. The patient was put on milk diet exclusively, taking on some days as many as eight pints of milk. Under this regimen the anasarca and dyspnœa were quite gone in a few days, and the albumen became less and less, till, in three weeks, there was not a trace of it. A month after the onset of these symptoms she was delivered naturally, of a still-born child, pregnancy being about 7½ months advanced; the mother herself made an excellent recovery. In one of the cases in which the quantity of albumen was greatly lessened by this treatment the patient did well throughout, although, in her previous confinement, she suffered severely from puerperal eclampsia. The cases were all of a character to encourage one in the careful carrying out of this treatment. It is essential that it be milk diet exclusively.

Treatment of Puerperal Convulsions.

In this country very large doses of morphia in eclampsia are by no means unknown, and some say, to the great detriment of patients. But lately (*Lancet*, July 16, 1881), Dr. S. Maberly Smith defends them earnestly, especially their hypodermic use. We quote as follows:—

The quantity of morphia to be injected is from one-fourth to one-third of a grain, according to the severity of the case. The simple solution of morphia is more efficacious than morphia and atropia combined; one large dose is better than two smaller ones.

Patients suffering from puerperal eclampsia, whether sensible or insensible, appear to resist the dangerous effects of the drug; it seems to have no bad consequences in cases in which, under ordinary circumstances, morphia would be strongly contraindicated. I have injected the solution in women who were insensible, with stertorous breathing, congested lungs and faces, and contracted pupils, in every case with the best result.

After injection the patient may have one fit before the drug has had time to act, but never has another for hours, provided that the injection is proportionate to the severity of the attack. If at the end of some hours the patient has another fit it is generally a slight one, and a smaller injection than the first should be given. No case of puerperal eclampsia has died in the Melbourne Lying in Hospital since this treatment has been adopted. Several of the patients so treated were as bad as it was possible for them to be, and would, I am convinced, have died under any other form of treatment.

He narrates the details of five cases in which this treatment certainly answered very well.

The "Axis Traction" Forceps.

M. Tarnier's "axis traction" forceps are asserted by his followers to introduce a new era in midwifery. Ordinary pelvic-curved forceps, such as Hodge's, Simpson's, Matthews', Duncan's Barnes', etc., only allow of traction being made *approximately* in the axis of the pelvis when the head is high up; a very considerable amount of the traction force being expended not only uselessly, but injuriously, in crushing the maternal structures against the pubes, and these forceps do not allow sufficient mobility to the fœtal head to follow its natural direction, nor do they indicate the proper and constantly varying direction for traction. On the other hand, the principles on which M. Tarnier's "Axis Traction Forceps," are constructed may be summarized thus:—

1. To allow traction to be made exactly in the axis of the pelvic curve, whether the fœtal head be above the brim of the pelvis or in its cavity.
2. To allow mobility to the fœtal head to follow the direction impressed upon it by the irregularities of the pelvis.

3. To indicate to the operator the exact direction in which he should, at any moment, make traction.

Professor SIMPSON has adapted traction-rods, fixed to a crossbar like that of TARNIER, to his forceps. He maintains that the perineal curve, which TARNIER insisted upon when he first introduced his forceps, is useless, and states that TARNIER himself now discards it. Professor SIMPSON, however, retains the perineal curve in the tractors.

There is no doubt but that the axis traction forceps are based on sound mechanical principles.

Recovery after Loss of the Uterus.

A case showing what serious lesions some women can recover from is given in the *Annales de Gynecologie*. A woman, 29 years of age, was delivered of her ninth child. The midwife, in delivering the after birth, broke the cord. Inserting her hand she seized firmly a rounded body, and amid fearful hemorrhage and intense pain dragged it away. The physician summoned found it to be the contracted, not inverted, uterus. Disinfectant measures were promptly taken, and the patient recovered. The ovaries remained, but menstruation ceased. Nevertheless, sexual desire was not absent, and the woman became strong and healthy.

Cervical Pregnancy.

In 1860, ROKITANSKY related a case where cervical pregnancy was found at an autopsy; through the influence of uterine contractions, the ovule had been projected from the uterine cavity into that of the cervix, and the woman succumbed.

Two other post-mortem cases have been since reported, but SCHULEIN reported, in 1878, the first clinical observation of this kind.

This cervical pregnancy is said to be secondary, for it succeeds uterine pregnancy, and occurs through premature expulsion of the ovule. In a recent brochûre, ("della Gravidanza cervicale") M. PAJUSCO cites two cases where this form of pregnancy was primitive, that is, where the ovule was developed from the first in the cavity of the cervix. Two of these cases were observed by Dr. KEPPLER, and a third by himself. In these cases, the cervix formed a tumor varying in size from a peach stone to that of a large apple.

This purplish tumor appears, on examination with the speculum, almost always spherical, harder than the gravid uterus, and slightly elastic. The external orifice is almost punctiform; in one case a mucous substance completely hid the orifice. The body of the uterus is generally little augmented in volume, and the entire organ has the form of an hour glass, the lower extremity being of greater volume than the upper.

During the period of development there is often considerable pain, and in all cases, vomiting; in one case it was incoercible.

After a certain time abortion takes place; it has been observed from the second to the fourth month.

The muscular fibres of the cervix commence to contract, the external orifice slowly dilates, the rupture of the membranes follows, and the fœtus is expelled. The placenta is partly but not completely separated, whence hemorrhage ensues, and can only be arrested by intervention of the accoucheur and extraction of the placenta.

Researches in Uterine Involution.

The study of uterine involution after labor is delicate and difficult, and the results obtained by different observers are not uniform. Recent special attention to this question has been paid by Dr. SINCLAIR, of this country, Dr. CH. MILSOM, in France (*Thèse de Lyon*, 1880), and by Dr. ARRARD, of Paris. The method employed by all was the measurement of the uterus by the uterine catheter. From Dr. MILSOM'S observations it is learned that the involution is much more rapid during the first four or five days after labor than at a later period. It is slower toward the neck than in the body of the uterus; and it is distinctly retarded by suckling. It is completed in about eight weeks in women who do not nourish their infants; in about twelve weeks in those who do. The length of the labor does not appear to influence the duration of involution in any respect.

A comparison of the various observations renders it quite certain that the process is far from a regular one, and even in the same woman, involution differs in duration in her different confinements.

CORRESPONDENCE.

The Vivisection Question.

ED. MED. AND SURG. REPORTER:—

In your widely extended journal, for July 23d, 1881, appeared copious extracts from a lecture by me before the "College of Physicians, of Philadelphia," entitled "Vivisection, with Reference to its Restriction by Legislative Action," and I felt gratified that the sentiments therein expressed, and which I, at least, intended should be conservative rather than ultra, would meet with an extensive diffusion. This intention is manifested in the first paragraph of my paper, in these words: "This subject demands, for profitable consideration, that it be entered upon in a liberal, ingenuous and forbearing spirit."

The comments which directly follow the ex

tracts from the lecture, upon a single paragraph of the paper, did not strike me as fully called for by the cautious and moderate tone of that paragraph. The editorial remarks, however, entitled, "Sentimentality about Vivisection," in the REPORTER of September 3d, coming so soon after the extracts from the lecture were published, could not fail to arrest my attention, exhibiting, as they did, a degree of antagonism to the general purport and object of my paper which I had supposed its moderation and conservative character would have precluded.

The prime object of the lecture was not an attempt to "prevent some very few of the lower animals from being used for the purposes of science," but, on the contrary, might be regarded as an acquiescence in, and an approval of the humane efforts of those who, for some years past, have endeavored (successfully too), to prevent the abuse of vivisection, by the enactment of such laws as would place some check to the atrocities that had too long prevailed in this connection. The restrictive act of the English Parliament is an evidence of the success of these commendable efforts. Nor was this success obtained until the whole subject, including the terrible history of vivisection, was laid bare; and the limited number of vivisections returned to Parliament during the year 1880 is to be accepted simply as the result of the restrictions imposed by law.

Is it rational to suppose, as has been charged, that, through "the ignorance of persons who knew nothing of the purposes for which vivisections are essential," attempts have been made either to prohibit vivisection unconditionally, or limit its practice by legal action? Are the members of the English Parliament, or of the Legislature of New York, and other States where this humane enactment is in operation, so imbecile that they cannot comprehend the facts and the arguments which have been so fully presented for their consideration, either for or against the prohibition or the restriction of vivisection? Or is it not well known that, as a rule, it is the more enlightened and thoughtful portion of the community who are in favor, at least, of restrictive enactments. In this connection I may here state that, before preparing "Thoughts on Vivisection in Reference to its Restriction by Legislative Action," I had casually intimated to a member of the profession my purpose to prepare such paper, when, in turn, he said that "he would not say that he could object to such restriction;" and, in this declaration, he did honor both to head and heart, for no one better than he comprehended the extreme difficulties of vivisection, and the rare qualifications required for its successful practice. I need only further add that the gentleman alluded to is, not only in this country, but in Europe, confessedly in the first rank of those engaged in this most difficult line of research.

GEO. HAMILTON, M.D.

Phila., September 7th, 1881.

[The discussions before the International Medical Congress relating to vivisection, as they appear in this and the last number of the REPORTER, show that the English laws on this subject are bitterly condemned by all the leading scientists. Those discussions are a sufficient defense of our position.—ED. REPORTER.]

Maternal Impressions.

ED. MED. AND SURG. REPORTER:—

Recently there has been a good deal said through the columns of the REPORTER, about maternal impressions, and with your permission I will refer to a few cases:—

The first case, a Mrs. R.: during her pregnancy one of her sons got into a fight and received a knife wound across his wrist, severing the softer parts, to the bone; in this condition the boy was received and wound dressed by his mother; and when the child was born it had a like gash across its forearm, which resisted all efforts at healing until the hand and arm above the wound were taken off; the stump then readily healed.

The second case was a Mrs. T., of Dewiess County, who, while pregnant, attended a young lamb that had its navel torn by some pigs; she tried to cure the torn cord, and the child which was afterwards born to her had a bleeding umbilicus which refused to heal, and at ten years old the otherwise stout boy had a lacerated and running navel. J. DAVIS, M.D.

Nevada, Mo.

NEWS AND MISCELLANY.

The Verification of Clinical Thermometers.

Mr. Leonard Walds, in the First Annual Report of the Winchester Observatory of Yale College, states that the facilities the Observatory offers to have physicians' clinical thermometers corrected gratuitously have been taken advantage of quite largely, as many as 1667 certificates having been issued. He adds:—

"The rapid success of our thermometric work is a cause of congratulation. The makers at first viewing our efforts with suspicion and in some cases sending thermometers we had examined to Kew, to be re-tested, have accepted the authority of our Observatory as final, and have greatly improved, under our encouragement. This is particularly true of the important class of makers of physicians' thermometers, to whom we have loaned standards and taken every occasion to educate and advise with. This great improvement is strikingly illustrated by the fact that while in June, 1880, four-fifths of all the thermometers received (representing seven different makers) were in error over one-third of a degree, and two per cent. had errors exceeding a whole degree, in April and May, 1881, four-fifths of all the thermometers sent had errors less than three-tenths of one degree. The medical press has, without any exception to our knowledge, commented favorably on this branch of our service, and urged it upon its professional readers. It is with feelings of surprise, however, that we have received, in the course of the year, perhaps, fifty thermometers taken from active practice whose errors have exceeded a degree and a-half. There have been, comparatively, but few physicians'

thermometers made in this country which have united accurate graduation of the scale with the requisite age of tube necessary to preclude further sensible changes, and there is little doubt that the great majority of physicians' thermometers now in use in the United States are from one-half to two degrees too high in their indications."

A Plausible Operator

Has been traveling through Iowa and the neighboring States, professing to have a specific remedy for acute and chronic rheumatism, the receipt for which he sells to a physician for fifty dollars, agreeing not to dispose of it to any other in the county—a promise which, of course, he makes no effort to keep. This wonderful specific consists of an internal and an external remedy. We impart them to the public, as supplied us by one of his victims; adding that it does not strike us as the proper thing for a physician to obtain information in this way, or under any such conditions of secresy, and, therefore, we have little sympathy for those this smooth-tongued speculator has victimized.

INTERNAL REMEDY.

Raw linseed oil,	ʒ iij
Oil of hemlock (pure),	ʒ ij
Oil of sassafras,	ʒ ij
Oil of peppermint,	ʒ ij
Oil of wintergreen,	ʒ ij
Oil of lemon,	ʒ j.

Put into eight-ounce bottle and fill up with Head-light oil, 175 *test*. Shake well before using. Dose, from five to twenty drops, from three to five times a day, until, in acute cases, there is a change of urine, when give only one a day, at bedtime, until cured.

For chronic cases give from ten to forty drops, four times a day, after meals and bedtime for one month, and then night and morning until cured.

For a bad case of *sciatica*, or *neuralgia*, give from *one to five drops of the liniment mixed with internal remedy*, twice a day, until pain ceases, and then continue with internal medicine only.

LINIMENT FOR SWELLINGS, ACHES, AND PAINS.

Raw linseed oil,	ʒ ij
Oil of hemlock,	ʒ ij
Oil of horse radish,	ʒ ij
Oil of celery,	ʒ ij.

Put into eight-ounce bottle and fill up with Head-light oil, 175 test. Shake well and keep in glass stoppered bottle. Apply to affected parts with camel's hair brush. For a bad case of sciatica, use, hypodermically, three to seven drops over seat of pain. Use freely for lame back and lumbago.

The American Dermatological Association.

This association held its annual meeting at Newport, R. I., Aug. 30th, 31st, and Sept. 1st. The President, James Nevin Hyde, of Chicago, opened the meeting with an address on the relations of dermatology to periodical medical literature. Papers on various subjects relating to skin diseases were read by Charles Heitzman, of New York, James C. White, of Boston, Arthur Van Harlingen and Louis A. Duhring, of Philadelphia, and Edward Wigglesworth, of Boston. The second day's session was devoted to a discussion of the important subject of leprosy in North America. From papers by Drs. Atkinson, of Baltimore, Hyde, of Chicago, and Schmitt, of New Orleans, it appears that leprosy is increasing in the United States. Papers were read by Dr. Heitzman and others, and the following officers were elected: President, Dr. J. N. Hyde, Chicago; Vice Presidents, Drs. Fox, New York, and Hardaway, St. Louis; Secretary, Arthur Van Harlingen, Philadelphia; Treasurer, Dr. Atkinson. A full report will appear in our next.

The British Medical Association.

This important body had its regular annual session immediately after the International Medical Association. The proceedings of the latter have occupied so much of our space, and have such paramount claims to attention, that we have not as yet found space for our usual report of the more practically valuable papers read before the British Medical. We shall, however, find space for it before long. The meeting was a satisfactory one, but a certain languor was visible, owing to the exertions of most of the members at the larger Congress.

The Condition of the President

At the time we write this, is far from promising a favorable termination. The implication of the lungs in cases of pyæmic blood-poisoning is always a matter of gravest anxiety, and we fear that in this instance even the excellent care and attention the patient receives, will scarcely allow a favorable prognosis.

The American Academy of Medicine

Will hold its Sixth Annual Meeting in New York City, on Sept. 20th, at 3 P.M.

RICHARD J. DUNGLISON, *Secretary*.
P. O. Box 2886, Philadelphia.

Personal.

—Dr. George J. Ziegler, of this city, has for the present located at Atlantic City, where he will give special attention to nervous and pulmonary diseases.

—Dr. E. Lloyd Howard, quarantine physician at Baltimore, was drowned, Sept. 5th. He attempted to jump from his boarding tug to the wharf, and fell between the pier and the vessel, striking his head and sinking.

—The election of Mr. Erasmus Wilson to the presidency of the College of Surgeons has been severely criticised in the *Lancet*, on the ground that Mr. Wilson is a dermatologist, and therefore more of a physician than a surgeon. As a general surgeon, the *Lancet* declares Mr. Wilson is not eminent.

—Rev. Henry Ward Beecher announced by letter to the United States Hay Fever Associa-

tion, at its meeting at Bethlehem, N. H., Sept. 5th, that he does not expect to visit the White Mountains again for his complaint, as he believes he has discovered a medicine which will prove a remedy. The attendance of the meeting was large. comprising persons from various States in the Union, some as far west as Dakota, and others as far south as Georgia.

Items.

—An act to provide for the registration of births, marriages and deaths was passed by the Legislature of Delaware last spring, and went into effect July 1st.

—The curiosity-mongers in and near Kansas City have had a chance to indulge their taste in looking at a "double child" born near there. It survived only a few hours after birth.

—The constitutionality of the act obliging physicians to register in this State is soon to be tested in Harrisburg, where a number of physicians have refused to accede to its requirements. The sooner the legality of the Act is tested, the better.

—Recently the newspaper press has had some sharp criticism of the health authorities at Charleston, for their treatment of the schooner M. C. Mosley, of Boston. This vessel, it would appear, picked up at sea the captain and crew of the brig Alphonse, from Cienfuegos for New York. The Alphonse had been disabled in a storm, and, being in a sinking condition, all hands took to the boats, from which, after twenty-four hours' severe suffering, they were rescued by the M. C. Mosley, and taken to Charleston, her port of destination. As soon as it was discovered by the authorities that the rescued mariners were from a port that had been declared to be infected with yellow fever, the vessel was ordered back to quarantine, to the great inconvenience and loss of her owners as well as her captain and crew. It is urged that there was no danger of contagion under the circumstances, and that the effect of the proceeding will be to discourage commanders of vessels in future from saving lives at sea, unless they are first assured that the persons in distress are not from yellow fever ports. This does seem an unusually hard case, and certainly the health authorities showed more zeal than discretion.

OBITUARY NOTICE.

JAMES C. FORRESTER, M.D.

Dr. James C. Forrester, one of the oldest physicians of New York, died August 20th, at his residence in New York City. Dr. Forrester was born August, 1811. He was educated for the medical profession, and was first graduated from Rutgers College, in New Jersey. In 1834 he graduated from the College of Physicians and Surgeons in New York, after having served the two previous years as house surgeon at Bellevue Hospital. He continued to hold this position until 1835, when he went into practice for himself.

QUERIES AND REPLIES.

Impotence.

Dr. J. Davis, of Mo., writes us, that in sexual atony he has prescribed damiana, and that it indicated no aphrodisiac properties whatever. He has found positive results from the following:—

℞ Tinct. hellebor. nig., 3ij
Aloes,
Myrrhæ, aa 3j
Cantharides, 3iss. M.

SIG.—A dessertspoonful night and morning, in a glass of sweetened water.

Dr. J. P. B., of Ark., recommends *circumcision*. He states that he never knew the operation to fail.

A Correspondent asks the dose of staphisagria, as recommended by Dr. Blockson, p. 230.

Syphilitic Alopecia.

Student asks: Is syphilitic alopecia permanent, or will the hair be renewed under specific treatment?

Ans.—Syphilitic alopecia offers a rather more favorable prognosis than some other varieties. In young and otherwise healthy subjects, when the specific poison is eliminated, the hair can, by proper attention, be measurably restored.

Dr. T. M. M., of Texas.—Fothergill's hydrobromic acid, has, it seems to us, hardly met the expectations raised about it a year or two ago. It is too sharp and pungent. The acid prepared by Fothergill's formula is quite different from the ordinary commercial article. Dr. Squibb recommends about gr. xxx in f.3iv water. See his article in MED. AND SURG. REPORTER, April 20th, 1878, p. 314.

Eczema of the Hands.

Dr. B. B. G., of Tenn., writes. Will some of your subscribers please suggest what may cure an inveterate case of Eczema Mannum? The lady is twenty-five years of age, a widow, and suffered with it since the birth of her child. It is hereditary. When it appears first in the shape of vesicles, they burst, run into each other, gradually dry up, leaving deep fissures in the flesh, with peeling off of the dead skin. At present it is spreading upon the arms. All functions are well performed. The treatment consisted in alteratives, as arsenic, mercury, iodine, etc. Externally an ointment, etc.

MARRIAGES.

HIGGINS—STEVENS.—On Sept. 7th, at Lake, Mo., Dr. R. M. Higgins, of St. Louis, and Miss Jennie C. Stevens, daughter of Dr. R. H. Stevens.

HURLBUT—BROOKS.—At the residence of the bride's mother, Stamford, Conn., Tuesday, August 26th, by the Rev. R. P. H. Vail, Dr. A. M. Hurlbut, of Stamford, and Belle, daughter of the late Horace Brooks.

VAN ARSDALE—TELLER.—On Thursday, Aug. 25th, by Rev. Talbot Chambers, D.D., Henry Van Arsdale, M.D., and Sarah A. Teller, both of New York.

VEIRS—BEERS.—Dr. Charles O. Veirs, of Jersey City (formerly of Brook Co., West Va.), and Mrs. Sarah H. Beers, of Keyport, Monmouth County, New Jersey.

DEATHS.

STERLING.—At Pittsburg, on the evening of Aug. 5th, Harry F. Sterling, M.D., formerly of Philadelphia, son of the late Robert B. Sterling.

SMITH.—On the evening of August 20th, Warren G Smith, M.D., in the forty-fourth year of his age.